



April 30, 2020

Mr. Todd Davis
Site Assessment Manager
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, Kansas 66219

Subject: Site Inspection Report
Tanglefoot Lane Site, Bettendorf, Scott County, Iowa
U.S. EPA Region 7 START 5, (b) (4)
(b) (4)
Task Monitor: Todd Davis, Site Assessment Manager

Dear Mr. Davis:

Tetra Tech, Inc. (Tetra Tech) is submitting the enclosed Site Inspection report regarding the Tanglefoot Lane site in Bettendorf, Iowa. If you have any questions or comments regarding this submittal, please contact the Project Manager at (816) 412-1784. A Hazard Ranking System scoring memorandum for the site will be submitted under separate cover.

Sincerely,

(b) (4)

START Project Manager

(b) (4)

START Program Manager

Enclosures

X903019F0086.001

SITE INSPECTION REPORT

**TANGLEFOOT LANE SITE
BETTENDORF, IOWA**

EPA SEMS ID: IAN000703123

Superfund Technical Assessment and Response Team (START) 5 Contract

[b] (4), [b] (4)

Prepared For:

U.S. Environmental Protection Agency
Region 7
Superfund Division
11201 Renner Boulevard
Lenexa, Kansas 66219

April 30, 2020

Prepared By:

Tetra Tech, Inc.
415 Oak Street
Kansas City, Missouri 64106
(816) 412-1741

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region 7, under authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), tasked Tetra Tech, Inc., (Tetra Tech) to conduct a Site Inspection (SI) at the Tanglefoot Lane site (the site) in Bettendorf, Scott County, Iowa (see Figure 1, Appendix A). Work proceeded under Superfund Technical Assessment and Response Team (START) 4 (b) (4) [REDACTED], (b) (4) [REDACTED], and reporting was completed under START 5 (b) (4) [REDACTED], (b) (4) [REDACTED].

The site has been entered into the Superfund Enterprise Management System (SEMS), with site identification number IAN000703123 (EPA 2020a).

The site formerly hosted an unpermitted landfill from the 1950s to 1970s, and presence of contaminated materials on the site has been documented (EnviroNET, Inc. [EnviroNET] 2012). The site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) (later replaced by the Superfund Enterprise Management System [SEMS]), as Identification Number IAN000703123 (EPA 2020a).

Tetrachloroethene (PCE) and associated breakdown products have been detected in environmental samples collected at and near the site during past investigations.

Purposes of this SI were to delineate extent of contamination and to assess inhalation threats posed to occupants of structures near and downgradient of the site. Although START completed a Preliminary Assessment (PA) in 2016 (Tetra Tech 2016), the PA was completed prior to addition of vapor intrusion (VI) evaluation to the Hazard Ranking System (HRS) in 2017. SI activities accorded with EPA's *Guidance for Performing Site Inspections under CERCLA* (EPA 1992), and the *Technical Support Document for U.S. EPA's Final Rule: Addition of a Subsurface Intrusion Component to the Hazard Ranking System* (EPA 2016). For this task, evaluation occurred to assess the relative threat associated with release of hazardous substances at the site, based on information obtained during the SI and previous investigations.

The HRS has been adopted by EPA to help prioritize hazardous waste sites for further evaluation and eventual remedial action. The HRS is the primary method of determining a site's eligibility for inclusion on the National Priorities List (NPL). The NPL identifies facilities at which EPA may conduct remedial response actions. Results from evaluation of the site according to HRS scoring criteria are discussed in a separate report.

2.0 SITE BACKGROUND INFORMATION

This section provides the site location and description, discusses geology/hydrogeology and hydrology at and near the site, recounts the operational history of the site, presents waste characteristics, and summarizes previous investigations and regulatory involvement pertaining to the site.

2.1 LOCATION AND DESCRIPTION

The site is within the City of Bettendorf in Scott County, Iowa, off Tanglefoot Lane between Devils Glen Road and Middle Road. Geographical coordinates at the site are 41.560218 degrees north latitude and 90.474599 degrees west longitude (see Appendix A, Figure 1). The site consists of two contiguous parcels, 841523010 and 841433011, totaling approximately 18 acres. Records from the Scott County Assessor's Office indicate that Parcel 841523010 consists of acreage north and south of Tanglefoot Lane; however, this SI is limited to the acreage south of Tanglefoot Lane where former landfilling of municipal and industrial wastes occurred (see Appendix A, Figure 2).

Most acreage at the site is timber and grassland, with steep topographical slopes to the south toward an unnamed creek that discharges to a neighboring residential pond. Adjacent property to the north is developed for residential use; adjacent properties to the east and west are residential/commercial; adjacent property across the creek to the south is improved with a church, parking lots, and residential use.

2.2 GEOLOGY AND HYDROGEOLOGY

The site is in the Mississippi River Valley of the Great Plains Region of the Central Interior of the United States. The region is covered with glacial sediments that have eroded to form a landscape consisting of uplands bisected by rivers, creeks, and streams that discharge into the Mississippi River. Site-specific soil information provided in the United States Department of Agriculture Soil Survey of Scott County, Iowa, indicates that the site is mostly characterized by Downs Silt Loam, Lindley Loam, and Nodaway Silt Loam. The Lindley Loam and Downs Silt Loam range from 5-25% slopes (moderately sloping to steep), and from moderately eroded to severely eroded. They are well-drained soils with permeabilities ranging from moderately slow (Lindley Loam) to moderate (Downs Silt Loam). Runoff from these soils ranges from medium to very rapid. The Nodaway Silt Loam has 0-2% slopes, and is a moderately well-drained soil found in areas of recent deposition. Permeability of the Nodaway soil is moderate, it has a slow runoff rate, and its seasonal high water table is at depths of 3-5 feet.

Observed geology in the vicinity of the former landfill during prior investigations included surface fill materials, silty clay loam and sandy silt in thin seams, dense dry stiff to fat clays of glacial origin (various

thicknesses), sand lenses, and sandy saturated substrate at depths of 12 to 15 feet. The fill area included degraded materials mixed with sand and clay, with glass, plastic, and debris mixed in at various intervals. Depth to groundwater varies from approximately 40 feet below grade near the roadway to approximately 1 foot below grade near the southern site boundary.

Observed geology in the vicinity of a former oil pit (see Appendix A, Figure 2) included surface debris in a limited area, silty clay loam and loess, and well-rounded oxidized sand. Thin, dry, discontinuous sand lenses were observed above a depth of 20 feet (EnviroNET 2013).

Direction of groundwater flow is to the south. Groundwater flows toward the un-named intermittent creek along the southern boundary of the site. Depth of groundwater at the southern end of the site is consistent with creek levels. The creek is an unnamed tributary of Crow Creek, which flows southeast toward the Mississippi River (Tetra Tech 2016).

The main source of municipal drinking water for the City of Bettendorf is the Mississippi River (American Water 2015). Locations of the active municipal wells within 4 miles of the site, their depths, and distances from the site are listed in Table 1 below. One well classified as municipal belongs to the City of Bettendorf, Iowa, and the other two wells classified as municipal are associated with Mid American Energy (Iowa Department of Natural Resources [IDNR] 2019). Information regarding registered private wells within 4 miles of the site is in Appendix B.

TABLE 1
BETTENDORF MUNICIPAL WELLS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA

Well Number	Owner	Latitude (°N)	Longitude (°W)	Elevation (feet amsl)	Well Depth (feet bgs)	Aquifer	Approximate Distance from Site (miles)
3	City of Bettendorf	41.525997	90.505981	576	2,122	Not Specified	2.74
53421	Mid American Energy	41.546639	90.445969	570	430	Silurian	1.64
53072	Mid American Energy	41.546639	90.445969	570	427	Silurian	1.64

Notes:

amsl Above mean sea level
 bgs Below ground surface
 °N Degrees north
 °W Degrees west

2.3 HYDROLOGY

The property slopes considerably to the south. Groundwater flows to the south toward the un-named intermittent creek along the southern boundary of the site. This unnamed tributary flows east through a manmade pond on the east adjacent property, and then southeast into Crow Creek and ultimately the Mississippi River. A sanitary sewer pipe routed to the west of the landfill area and then south toward the municipal collector system was installed under Tanglefoot Road in 2013 (EnviroNET 2013).

2.4 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

This section describes operational history at the site, and discusses waste characteristics associated with the site.

2.4.1 Operational History

The site is currently owned by sisters (b) (6). They reported that their father, Harry Meinert, now deceased, owned the property consisting of a farmhouse with extensive acreage since their childhood. Table 2 summarizes previous uses of the site:

TABLE 2
SUMMARY OF OPERATIONAL HISTORY
TANGLEFOOT LANE SITE, BETTENDORF, IOWA

Date or Date Range	Operational Use
1937-1950s	The site was a homestead, used for farming; significant portion was timber with a large ravine.
1950s-1960s	Current owners of the site reported that during this time, Harry Meinert began collecting and storing/disposing of municipal and possibly industrial waste materials.
1960s-1970s	Waste collection and on-site disposal of materials occurred.
1970s-1980s	Storage/disposal stopped at some time in the late 1960s or early 1970s. Vegetation reclaimed the landfill area.
1980s-1990s	The site was passive.
1990s-2000s	The site was passive.
2000s-2011	The site was passive.
2012	The site was used to store fill material for the Grayhawk construction project on the north side of Tanglefoot Lane.

Source: EnviroNET Inc. (EnviroNET) 2012.

Nearby Facilities

Adjacent property to the north is developed for residential use; adjacent properties to the east and west are residential/commercial; adjacent property across the creek to the south is improved with a church, parking lots, and residential use.

2.4.2 Waste Characteristics

Based on previous investigations, PCE and trichloroethene (TCE) are the primary contaminants of concern at the site.

PCE

PCE is a nonflammable, colorless liquid with an ether-like odor that has been typically used in dry cleaning operations and as a degreaser for metal parts (Agency for Toxic Substances and Disease Registry [ATSDR] 2019a). PCE is a volatile liquid that is denser than water and tends to be found at greater depths with increasing distance from a source area if released to the environment. The primary target for toxicity due to prolonged exposure to PCE is the central nervous system, and PCE may cause vision changes and neurobehavioral effects.

PCE was introduced as a dry cleaning solvent in 1934, and by 1948 had replaced carbon tetrachloride (CCl_4) as the major chlorinated dry cleaning solvent used in the United States (petroleum solvents still dominated overall). By 1962, dry cleaning operations accounted for 90 percent of PCE used in the United States. At one time, PCE had been mixed with grain protectants and certain liquid grain fumigants, but this was no longer approved by 1980 (Meister Publishing Company 1980). In the environment, PCE degrades to TCE via dechlorination.

TCE

TCE is a nonflammable, colorless liquid with a somewhat sweet odor and a sweet, burning taste (ATSDR 2019b). It is used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, lubricants, paints, paint removers, and pesticides. Previously, it was used in textile processing and dry cleaning operations until this was discontinued in the 1950s. TCE is a volatile liquid that is denser than water and is typically found at greater depths with increased time and/or distance from a source area if released to the environment. TCE is reasonably anticipated to be a human carcinogen. Drinking or inhaling small amounts of TCE for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women (ATSDR 2019b). The *cis*- and *trans*- isomers of 1,2-dichloroethene (DCE) and 1,1-DCE are common degradation products from TCE. These daughter products eventually degrade to vinyl chloride.

2.5 PREVIOUS PHASE I AND PHASE II INVESTIGATIONS

The following are descriptions of previous Phase I and Phase II investigations at the Tanglefoot Lane site:

2.5.1 EnviroNET – Phase I Environmental Site Assessment

EnviroNET conducted a Phase I Environmental Site Assessment (ESA) of the site in 2012. The ESA revealed that the site had previously served as a landfill for municipal waste, and possibly industrial waste. In addition, the investigation revealed that Mr. Harry Meinert had been in the “oil and chip” business, which included storage of waste oil for application to country roads for dust control. During the site inspection, EnviroNET observed presence of waste on the ground surface among weeds and trees (glass, plastic, metal containers including 55-gallon drums, scrap metal, and limited construction debris). Recognized environmental conditions (REC) identified during the Phase I ESA included:

- Unpermitted storage of municipal waste on the property
- Possible presence of hazardous/contaminated waste in containers, in soil, in leachate, and/or in groundwater
- Former storage of waste oil on the property in clay pits
- Presence of leachate drainage pipe extending from the fill area and draining downhill.

2.5.2 EnviroNET – Phase II Environmental Investigation

EnviroNET conducted a Phase II ESA in 2012/2013. Part of the Phase II ESA involved efforts to confirm or eliminate RECs identified during the Phase I ESA. During the Phase II ESA, contamination detected in soil and groundwater indicated significant breakdown of solvents. However, analytical results from soil and groundwater samples indicated that most of the contamination—including PCE, TCE, and polychlorinated biphenyls (PCB)—had remained with the waste or in leachate within the waste. EnviroNET concluded that these contaminants would remain there, leaching slowly over time until removal of the waste. EnviroNET did not assess the un-named creek inside the southern property line during the Phase II ESA.

2.6 REGULATORY INVOLVEMENT

A summary of site involvement and investigations by EPA, including a summary of previous sampling and analytical results, follows:

2.6.1 Preliminary Assessment

A PA proceeded in response to discovery of contaminants in soil and groundwater at the site, primarily PCE, PCBs, and TCE (Tetra Tech 2016). Field activities associated with the PA occurred in September 2015, in accordance with an approved Quality Assurance Project Plan (QAPP). Sample locations were selected based on site knowledge and previous Phase II investigation results to determine impacts on soils from previous operations. By use of direct-push technology (DPT), soil borings were advanced and sampled at six locations. Subsurface soil samples were collected from each boring within the two depth intervals exhibiting the highest volatile organic compound (VOC) concentrations based on photoionization detector (PID) readings, or where staining was visually apparent. Groundwater samples were collected from temporary wells at four of the six locations. Six soil-gas samples collocated with DPT soil/groundwater sample locations were collected, along with an ambient air sample. Three surface water and four sediment samples were also collected as part of PA sampling activities.

2.6.2 Summary of Preliminary Assessment Sampling Results

This section discusses analytical results from soil, groundwater, soil-gas, surface water, and sediment samples collected during the PA.

Soil Sampling

During the 2016 PA, subsurface soil samples were collected from six DPT borings. Twelve samples were collected (two from each boring) within the two depth intervals of each boring exhibiting highest VOC concentrations based on PID readings or visually apparent staining. If no indications of contamination were present, soil samples were collected within the depth interval of 2 to 4 feet below ground surface (bgs) and from immediately above the water table. If no groundwater was encountered, the second sample was collected at 16 feet bgs.

Two samples were found to contain concentrations of TCE, *cis*-1,2-DCE, and vinyl chloride (VC) exceeding their respective Superfund Chemical Data Matrix (SCDM) benchmarks. Estimated PCE concentrations ranged from 26 to 960 micrograms per kilogram ($\mu\text{g}/\text{kg}$); estimated TCE concentrations ranged from 50 to 52,000 $\mu\text{g}/\text{kg}$; and estimated vinyl chloride concentrations ranged from 3,000 to

35,000 µg/kg. Concentrations of the metals cobalt and thallium, the semivolatile organic compound (SVOC) bis(2-ethylhexyl)phthalate, and PCB Aroclor 1254 were also detected at concentrations exceeding EPA SCDM benchmarks. Additionally, analytical results indicated elevated concentrations of total petroleum hydrocarbons (TPH) (diesel-range organics [DRO], gasoline-range organics [GRO], and oil-range organics [ORO]) in multiple samples collected within the landfill area (Tetra Tech 2016).

Groundwater Sampling

Five groundwater samples, including one field duplicate, were collected from four temporary wells at the site. START attempted to collect groundwater samples at all six DPT boring locations; however, groundwater was not encountered at two locations.

Analytical results from DPT groundwater sampling indicated detections of 32 different substances. Among these detections and exceeding EPA SCDM benchmarks were concentrations of the metals arsenic (total and dissolved), chromium, cobalt (total and dissolved), and lead; and the VOCs 1,1-dichloroethane, 1,1-DCE, *cis*-1,2-DCE, TCE, and VC. Estimated TCE concentrations ranged from 0.72 to 540 micrograms per liter (µg/L). Analytical results also indicated significant concentrations of TPH GRO in multiple samples collected within the landfill area. Overall, samples collected within the landfill area contained higher concentrations of contaminants than did samples collected within other areas at the site (Tetra Tech 2016).

Soil-Gas Sampling

For the PA, six soil-gas samples and an ambient air sample were collected. Soil-gas samples were collocated with DPT soil/groundwater samples. The ambient air sample was collected slightly upgradient of the site.

Analytical results from DPT soil-gas and ambient air sampling indicated detections of 26 VOCs. Among detections in soil-gas samples, concentrations of 14 VOCs including PCE/TCE and their breakdown products exceeded EPA SCDM benchmarks. In the ambient air sample, concentrations of five VOCs exceeded EPA SCDM benchmarks. Overall, samples collected within the landfill and oil pit areas contained concentrations of contaminants higher than in samples collected within other areas (Tetra Tech 2016).

Surface Water

Three surface water samples were collected from the un-named intermittent creek that flows along the southern boundary of the site. No analyte concentration exceeded an EPA SCDM drinking water benchmark.

Sediment

Five sediment samples, including one field duplicate, were collected from the top 6 inches of sediment in the un-named intermittent creek. EPA has not established hazardous substance benchmarks for the sediment pathway. Therefore, none of the detections exceeded an EPA SCDM benchmark.

3.0 SITE INSPECTION ACTIVITIES

SI field activities involved collections of soil-gas, groundwater, surface soil, surface water, sediment, indoor air, ambient air, sub-slab vapor, and private well groundwater samples during October 3-7, 2016; March 12-22, 2018; and August 21-23, 2018. General objectives of the SI were to delineate extents of contamination, and to assess inhalation threats posed to occupants of structures near and downgradient of the site. START members (b) (4) performed SI sampling activities. EPA Region 7 Project Manager (PM) Melinda Luetke and Yvonne Smith were also on site during a portion of the SI sampling. Photographic documentation of field activities is in Appendix C. Field activities were also documented in a site logbook and field sheets (see Appendices D and E, respectively).

3.1 SOIL-GAS SAMPLING

On October 4-7, 2016, 13 soil-gas samples were collected (DPT-1 through -11, -13, and -15). Soil-gas samples were collocated with DPT groundwater sample locations, except where groundwater was too shallow (see Appendix A, Figure 3). One soil-gas sample was collected upgradient of the site (north) at DPT-1 to represent background conditions. Three soil-gas locations (DPT-2, -3, and -4) were sampled along the street on the north edge of the site. Four locations (DPT-5, -6, -7, and -8) were sampled downgradient of the site to the southeast along Middle Road adjacent to a residential area. Four locations (DPT-9, -10, -11, and -13) were south of the site boundary (downgradient and south of the creek). One soil-gas sample location (DPT-15) was in the former oil pit. No soil-gas samples were collected at DPT-12, -14, -16, and -17 due to encounters with shallow groundwater. Seagull Environmental Technologies, Inc. (Seagull) conducted Geoprobe operation, under contract to Tetra Tech.

At each location, by use of a DPT rig, steel rods were advanced to about 4 to 5 feet bgs, and then retracted about 6 inches to create a void space to allow collection of soil-gas vapors. The soil-gas samples were collected through the steel rods via disposable polyethylene tubing connected to the bottom of the rod string and an evacuated Summa canister on the ground surface. By use of a vacuum pump, air in the tubing was evacuated prior to connection of the tubing to the Summa canister. After connection of the Summa canister to the tubing, a valve on the Summa canister was opened to begin sample collection. The Summa canister remained attached to the polyethylene tubing until the vacuum gauge indicated approximately 5 to 7 pounds per square inch (psi) remaining in the canister. Collection time depended on the soil type encountered during DPT activities (tighter soils, such as clays, take longer to sample).

All samples were analyzed for VOCs. After completion of soil-gas sampling, all DPT boreholes were plugged with bentonite from bottom of hole to ground surface. Table 3 below summarizes soil-gas sampling locations and associated data.

TABLE 3
DPT SOIL-GAS SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Location ID	EPA Sample ID	Date Sampled	Time Sampled	Sample Depth Interval (feet bgs)	Latitude (degrees north)	Longitude (degrees west)
DPT-1 ^a	7219-1	10/4/2016	14:45	4-5	41.563328	90.477241
DPT-2	7219-2	10/5/2016	16:20	4-5	41.560696	90.478347
DPT-3	7219-3	10/5/2016	07:25	4-5	41.560674	90.476527
DPT-4	7219-4	10/5/2016	08:45	4-5	41.560558	90.472568
DPT-5	7219-5	10/5/2016	11:50	4-5	41.559808	90.468729
DPT-6	7219-6	10/5/2016	13:40	4-5	41.558520	90.469924
DPT-7	7219-7	10/5/2016	15:25	4-5	41.557662	90.971726
DPT-8	7219-8	10/5/2016	17:00	4-5	41.556152	90.474811
DPT-9	7219-9	10/5/2016	17:52	4-5	41.558680	90.478590
DPT-10	7219-10	10/6/2016	08:40	4-5	41.558698	90.476837
DPT-11	7219-11	10/6/2016	10:35	4-5	41.559093	90.476312
DPT-12	NS	10/6/2016	NS	NS	41.558629	90.476449
DPT-13	7219-12	10/6/2016	13:42	4-5	41.558502	90.475398
DPT-14	NS	10/6/2016	NS	NS	41.559867	90.472516
DPT-15	7219-13	10/7/2016	08:00	4-5	41.560485	90.473593
DPT-16	NS	10/7/2016	NS	NS	41.560156	90.476438
DPT-17	NS	10/7/2016	NS	NS	41.560315	90.476408
Ambient Air*	7219-18	10/7/16	16:45	NA	NA	NA

Notes:

^a Background location.

* No DPT involved in collection of ambient air sample.

bgs	Below ground surface	ID	Identification
DPT	Direct-push technology	NA	Not applicable
EPA	U.S. Environmental Protection Agency	NS	Not sampled

3.2 DPT GROUNDWATER SAMPLING

During October 4-7, 2016, groundwater samples were collected at 11 temporary wells (DPT-2 through -6, -9, -10, -14 through -17). Sampling locations were generally collocated with soil gas sample locations, except where groundwater was not encountered. Three wells (DPT-2, -3, and -4) were placed along the street on the north edge of the site. Two wells (DPT-5 and -6) were downgradient of the site to the southeast along Middle Road next to a residential area. Three wells (DPT-9, -10, and -14) were south of the site boundary (downgradient and south of the creek). Three wells were on site—one well (DPT-15) was in the former oil pit and two wells (DPT-16 and -17) were in the estimated former landfill area.

(see Appendix A, Figure 3). No groundwater was encountered at the upgradient location (DPT-1) placed to represent background conditions, or at DPT-7, -8, -11, -12, and -13; therefore groundwater samples were not collected at these locations. Seagull conducted Geoprobe operation, under contract to Tetra Tech.

At most temporary well locations, a 4-foot-long, stainless steel slotted screen encased in an outer sleeve was pushed to the desired sampling depth (between approximately 16 and 44 feet bgs across the study area). This sleeve surrounding the screen was then pulled up to expose the screen and to allow formation water to enter the screen and pipe string. Polyethylene tubing was inserted into the pipe string, and groundwater samples were collected by use of a pump or check valve placed at the base of the tubing.

Groundwater samples from most well locations were analyzed for VOCs, TPH, SVOCs, Target Analyte List (TAL) metals (total and dissolved), pesticides, PCBs, and herbicides. Because of limited groundwater production, the list of analytes was reduced for samples collected at DPT-2 (VOCs were the only analytes), DPT-3 and -5 (VOCs and SVOCs were analytes), and DPT-9 (VOCs, TPH, SVOCs, and pesticides were analytes). START collected groundwater samples, labeled them, and placed them in a cooler maintained at or below a temperature of 4 degrees Celsius (°C). Following groundwater sampling at each location, the temporary well was removed, and the open borehole was filled with bentonite (granular or chips). Table 4 below summarizes groundwater sampling locations and associated data.

TABLE 4
DPT GROUNDWATER SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Location ID	EPA Sample ID	Date Sampled	Time Sampled	Sample Depth Interval (feet bgs)	Latitude (degrees north)	Longitude (degrees west)
DPT-1 ^a	NS	10/4/2016	NS	NS	41.563328	90.477241
DPT-2	7219-201	10/5/2016	17:50	34-38	41.560696	90.478347
DPT-3	7219-202	10/5/2016	08:00	40-44	41.560674	90.476527
DPT-4	7219-203	10/5/2016	09:20	32-36	41.560558	90.472568
DPT-5	7219-204	10/5/2016	12:50	28-32	41.559808	90.468729
DPT-6	7219-205	10/5/2016	14:30	36-40	41.558520	90.469924
DPT-7	NS	10/5/2016	NS	NS	41.557662	90.971726
DPT-8	NS	10/5/2016	NS	NS	41.556152	90.474811
DPT-9	7219-206	10/5/2016	07:30	36-40	41.558680	90.478590
DPT-10	7219-207	10/6/2016	09:20	36-40	41.558698	90.476837
DPT-11	NS	10/6/2016	NS	NS	41.559093	90.476312
DPT-12	NS	10/6/2016	NS	NS	41.558629	90.476449
DPT-13	NS	10/6/2016	NS	NS	41.558502	90.475398
DPT-14	7219-210	10/6/2016	15:50	28-32	41.559867	90.472516
DPT-15	7219-213	10/7/2016	09:00	40-44	41.560485	90.473593
DPT-16	7219-214	10/7/2016	10:30	16-20	41.560156	90.476438
DPT-17	7219-215	10/7/2016	11:20	16-20	41.560315	90.476408
Rinsate Blank	7219-216	10/7/2016	12:18	NA	NA	NA
Trip Blank	7219-225 FB	NA	NA	NA	NA	NA

Notes:

^a Background location

bgs	Below ground surface	ID	Identification
DPT	Direct-push technology	NA	Not applicable
EPA	U.S. Environmental Protection Agency	NS	Not sampled

3.3 SURFACE WATER AND SEDIMENT SAMPLING

On October 6, 2016, four collocated surface water and sediment samples were collected from the creek on the southern portion of the site to determine impacts of contamination on surface water/sediment upgradient (west) and downgradient (east) of the site (see Appendix A, Figure 3).

Surface Water Sampling

Samples were analyzed for VOCs, TPH, SVOCs, TAL metals (total and dissolved), pesticides, PCBs, and herbicides. Table 5 below summarizes surface water sample locations and associated data.

TABLE 5

**SURFACE WATER SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA**

Location ID	EPA Sample ID	Date Sampled	Time Sampled	Latitude (degrees north)	Longitude (degrees west)
SWS-01	7219-208	10/6/2016	12:45	41.559592	90.469404
SWS-03	7219-209	10/6/2016	15:30	41.559678	90.470531
SWS-02	7219-211	10/6/2016	16:30	41.559678	90.470531
SWS-04	7219-212	10/7/2016	08:10	41.560274	90.483205

Notes:

EPA U.S. Environmental Protection Agency
ID Identification

Sediment Sampling

Sediment samples were collected from the top 6 inches of sediment by use of hand-held, disposable, stainless-steel spoons. Grab samples collected for VOCs and TPH-purgeables (GRO) analysis were placed in two 40-milliliter glass vials each. The remaining sediment was homogenized in a disposable container, and then transferred to three 8-ounce jars. These jars were submitted for SVOCs, TAL metals, TPH-extractables (DRO and ORO), pesticides, PCBs, and herbicides analyses. Table 6 below summarizes sediment sample locations and associated data.

TABLE 6
SEDIMENT SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Location ID	EPA Sample ID	Date Sampled	Time Sampled	Latitude (degrees north)	Longitude (degrees west)
SWS-01	7219-101	10/6/2016	13:00	41.559592	90.469404
SWS-03	7219-102	10/6/2016	15:40	41.559678	90.470531
SWS-02	7219-103	10/6/2016	16:40	41.559678	90.470531
SWS-04	7219-104	10/7/2016	08:20	41.560274	90.483205

Notes:

EPA U.S. Environmental Protection Agency
ID Identification

3.4 SURFACE SOIL SAMPLING

On October 7, 2016, seven surface soil samples were collected on site to determine impacts on surface soils from previous operations (Appendix A, Figure 3). Surface soil samples were collected within the top 6 inches of soil by use of a hand-held shovel. One soil sample was collected from the former oil pit (SS-1). Three soil samples were collected from the estimated former landfill area (SS-2, -3, and -4). Three soil samples were collected along the creek at the south boundary of the site (SS-5, -6, and -7).

At each sampling location, a 30- by 30-foot sampling grid with nine cells (each 10 by 10 feet) was established, with one aliquot collected from each of the nine cells. The nine aliquots were placed in a disposable container for homogenization to form a composite sample, and were transferred to three 8-ounce jars. The homogenized soil samples were submitted for SVOCs, TAL metals, TPH-extractables (DRO and ORO), pesticides, PCBs, and herbicides analyses. Table 7 below summarizes surface soil sample locations and associated data.

TABLE 7
SURFACE SOIL SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Location ID	EPA Sample ID	Date Sampled	Time Sampled	Latitude (degrees north)	Longitude (degrees west)
SS-1	7219-105	10/7/2016	10:00	41.560455	90.473476
SS-2	7219-106	10/7/2016	11:15	41.560315	90.476404
SS-3	7219-107	10/7/2016	11:32	41.560114	90.476566
SS-4	7219-108	10/7/2016	11:56	41.559951	90.476416
SS-5	7219-109	10/7/2016	14:50	41.559275	90.476210
SS-6	7219-110	10/7/2016	15:23	41.559306	90.475130
SS-7	7219-111	10/7/2016	15:52	41.559346	90.474125

Notes:

EPA U.S. Environmental Protection Agency
ID Identification

3.5 INDOOR AIR AND AMBIENT AIR SAMPLING

On March 19-22 and August 21-23, 2018, START collected 28 indoor air samples from 13 residences surrounding the site. Properties sampled for indoor air were primarily residential structures downgradient (south and east) of the site. A residence to the northeast and a commercial property (event venue) directly east of the site were also sampled. In addition, six ambient air samples were collected at three locations upwind of and within areas where indoor air samples were collected (three per sampling event) to assess airborne levels of contaminants of concern that could impact concentrations of analytes in indoor air samples (Appendix A, Figure 4).

Six-liter Summa® canisters were fitted with flow regulating devices to enable collection of indoor air and ambient air samples continuously over a 24-hour period. On a field sheet for each sample, pertinent data were recorded—including analyses to be performed, exact sample locations, canister and regulator identification numbers, and start/stop times and canister vacuum readings (see Appendix E). All air samples were submitted to the EPA Region 7 laboratory in Kansas City, Kansas, for VOC analysis. Table 8 below summarizes indoor air and ambient air samples collected during the SI.

TABLE 8
INDOOR AIR AND AMBIENT AIR SAMPLE SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Sample Number	Address	Location in Residence	Sample Type	Start		End	
				Date	Time	Date	Time
7782-2	(b) (6)	Living room	Indoor Air	3/19/18	15:15	3/20/18	14:40
7782-3	(b) (6)	Basement sitting room	Indoor Air	3/19/18	15:50	3/20/18	15:20
7782-4	(b) (6)	Basement	Indoor Air	3/20/18	08:26	3/21/18	08:02
7782-7	(b) (6)	Pavilion storage closet	Indoor Air	3/20/18	08:39	3/21/18	07:50
7782-10	(b) (6)	Living room	Indoor Air	3/20/18	09:22	3/21/18	08:39
7782-12	(b) (6)	Living room	Indoor Air	3/20/18	10:19	3/21/18	09:26
7782-14	(b) (6)	Living room	Indoor Air	3/20/18	10:47	3/21/18	09:40
7782-15 ^a	(b) (6)	Basement recreational room	Indoor Air ^a	3/20/18	12:13	3/21/18	11:32
7782-17	(b) (6)	Living room	Indoor Air	3/20/18	12:50	3/21/18	11:57
7782-19	(b) (6)	Living room	Indoor Air	3/20/18	17:20	3/21/18	16:53
7782-21	(b) (6)	Living room	Indoor Air	3/21/18	14:20	3/22/18	13:50
7782-23	(b) (6)	Living room	Indoor Air	3/21/18	15:01	3/22/18	14:04
7782-26	(b) (6)	Living room	Indoor Air	3/21/18	20:52	3/22/18	19:55
7917-1	(b) (6)	Living room	Indoor Air	8/21/18	09:45	8/22/18	09:15
7917-3	(b) (6)	Living room	Indoor Air	8/21/18	10:08	8/22/18	09:39
7917-4	(b) (6)	Basement quilting room	Indoor Air	8/21/18	10:06	8/22/18	09:38
7917-5	(b) (6)	Pavilion storage closet	Indoor Air	8/21/18	10:36	8/22/18	10:03
7917-6	(b) (6)	Basement	Indoor Air	8/21/18	10:44	8/22/18	10:11
7917-9	(b) (6)	Living room	Indoor Air	8/21/18	11:42	8/22/18	11:15
7917-11	(b) (6)	Living room	Indoor Air	8/21/18	13:01	8/22/18	12:33
7917-13	(b) (6)	Living room	Indoor Air	8/21/18	16:14	8/22/18	16:09
7917-15	(b) (6)	Living room	Indoor Air	8/21/18	16:39	8/22/18	16:22
7917-17	(b) (6)	Living room	Indoor Air	8/22/18	08:19	8/23/18	08:02
7917-20 ^a	(b) (6)	Basement living room	Indoor Air ^a	8/22/18	08:54	8/23/18	08:21
7917-21	(b) (6)	Basement living room	Indoor Air	8/22/18	10:29	8/23/18	10:00
7917-22	(b) (6)	Living room	Indoor Air	8/22/18	11:00	8/23/18	10:35
7917-25	(b) (6)	Living room	Indoor Air	8/22/18	12:57	8/23/18	12:12
7917-27	(b) (6)	Living room	Indoor Air	8/22/18	15:10	8/23/18	14:50
7782-6	(b) (6)	West of house	Ambient Air	3/20/18	08:32	3/21/18	08:04
7782-8	(b) (6)	Back patio	Ambient Air	3/20/18	09:24	3/21/18	08:40
7782-24	(b) (6)	West of house	Ambient Air	3/21/18	15:05	3/22/18	14:06
7917-8	(b) (6)	West of house	Ambient Air	8/21/18	10:48	8/22/18	10:09
7917-19	(b) (6)	Back patio	Ambient Air	8/22/18	08:20	8/23/18	08:03
7917-24	(b) (6)	West of house	Ambient Air	8/22/18	11:04	8/23/18	10:38
7782-27	Trip Blank	NA	Trip Blank	3/22/18	NA	NA	22:00
7917-29	Trip Blank	NA	Trip Blank	8/23/18	NA	NA	15:00

Notes:

^a Vapor mitigation system installed.

Circ.	Circle
Dr.	Drive
NA	Not applicable
Pl.	Place
Rd.	Road

3.6 SUB-SLAB VAPOR SAMPLING

On March 19-22 and August 21-23, 2018, START collected 20 sub-slab vapor samples at 11 properties. Properties sampled for sub-slab soil gas were residential structures primarily downgradient (south and east) of the site. One sub-slab vapor sample was collected from a residence northeast of the site to represent background conditions (see Appendix A, Figure 4). Installation of the sub-slab sampling ports involved inserting a 0.25-inch-diameter, stainless-steel tube approximately 6 inches in length into a hole drilled into the sub-slab material, and then sealing the tube's annulus with cement grout. A Swagelok® fitting was attached to the top of the stainless-steel tube to allow its connection to disposable polyethylene tubing that in turn was connected to an evacuated Summa canister for sampling. Each Summa canister was fitted with a flow regulator to enable collection of sub-slab vapor samples over a continuous 24-hour period. The samples were submitted to the EPA Region 7 laboratory for analysis for VOCs. Table 9 below summarizes the sub-slab samples.

TABLE 9
SUB-SLAB SOIL VAPOR SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Sample Number	Address	Location in Residence	Sample Type	Start		End	
				Date	Time	Date	Time
7782-1	(b) (6)	Basement storage room	Sub-slab	03/19/18	15:15	03/20/18	14:39
7782-5	(b) (6)	Basement storage room	Sub-slab	03/20/18	08:18	03/21/18	08:00
7782-9	(b) (6)	Basement storage closet	Sub-slab	03/20/18	09:20	03/21/18	08:37
7782-11	(b) (6)	Basement storage room	Sub-slab	03/20/18	10:17	03/21/18	09:24
7782-13	(b) (6)	Basement quilting room	Sub-slab	03/20/18	10:46	03/21/18	09:38
7782-16	(b) (6)	Basement storage room	Sub-slab	03/20/18	12:48	03/21/18	11:55
7782-18	(b) (6)	Basement storage room	Sub-slab	03/20/18	17:18	03/21/18	16:49
7782-20	(b) (6)	Basement storage area	Sub-slab	03/21/18	14:17	03/22/18	13:47
7782-22	(b) (6)	Basement storage closet	Sub-slab	03/21/18	14:58	03/22/18	14:01
7782-25	(b) (6)	Basement unfinished portion	Sub-slab	03/21/18	20:47	03/22/18	19:53
7917-2	(b) (6)	Basement corner	Sub-slab	08/21/18	09:42	08/22/18	09:14
7917-7	(b) (6)	Basement storage room	Sub-slab	08/21/18	10:45	08/22/18	10:10
7917-10	(b) (6)	Basement storage room	Sub-slab	08/21/18	11:45	08/22/18	11:15

TABLE 9 (Continued)
SUB-SLAB SOIL VAPOR SUMMARY
TANGLEFOOT LANE, BETTENDORF, IOWA

Sample Number	Address	Location in Residence	Sample Type	Start		End	
				Date	Time	Date	Time
7917-12	(b) (6)	Basement storage area	Sub-slab	08/21/18	12:59	08/22/18	12:32
7917-14	(b) (6)	Basement laundry room	Sub-slab	08/21/18	16:13	08/22/18	16:08
7917-16	(b) (6)	Basement unfinished portion	Sub-slab	08/21/18	16:30	08/22/18	16:21
7917-18	(b) (6)	Basement storage closet	Sub-slab	08/22/18	08:18	08/23/18	08:01
7917-23	(b) (6)	Basement storage closet	Sub-slab	08/22/18	10:59	08/23/18	10:35
7917-26	(b) (6)	Basement under stairs	Sub-slab	08/22/18	12:56	08/23/18	12:11
7917-28	(b) (6)	Basement storage area	Sub-slab	08/22/18	15:10	08/23/18	14:50

Notes:

Circ. Circle
Dr. Drive
NA Not applicable
Pl. Place
Rd. Road

3.7 PRIVATE WELL SAMPLING

On March 21-22 and August 23, 2018, START collected eight samples from six private drinking water wells within a mile of the site (see Appendix A, Figure 4). Three private well sample locations were northeast of the site, and three sample locations were south of the site. Groundwater samples from the drinking water wells were collected from spigots nearest the wellheads, prior to any treatment systems. Supply lines/systems were purged for approximately 5 minutes before collection of samples. Groundwater samples were collected in four 40-milliliter (mL) vials preserved with hydrochloric acid (HCl). The samples were submitted to the EPA Region 7 laboratory for analysis for VOCs. Table 10 below summarizes the private well sample locations and associated information.

TABLE 10
PRIVATE WELL SAMPLES
TANGLEFOOT LANE, BETTENDORF, IOWA

Sample Number	Address	Date Sampled	Time Sampled
7782-101	(b) (6)	3/21/2018	10:15
7782-112	7782-101-Field Duplicate	3/21/2018	10:15
7782-102	(b) (6)	3/22/2018	10:15
7782-103	(b) (6)	3/22/2018	12:40
7782-104	(b) (6)	3/22/2018	14:20
7782-105	(b) (6)	3/22/2018	14:53
7782-106	(b) (6)	3/22/2018	16:40
7917-101	(b) (6)	8/23/2018	11:10
7782-113	Field Blank	3/22/2018	17:30
7917-102	Field Blank	8/23/2018	12:30
7917-104	Trip Blank	8/23/2018	12:45

Notes:

Ct.	Court
Dr.	Drive
NA	Not applicable
Rd.	Road

3.8 QUALITY CONTROL SAMPLES

Field quality control (QC) samples—one equipment rinsate sample of the decontaminated Geoprobe groundwater sampling apparatus, one water trip blank, and two air trip blanks (evacuated Summa canisters)—were submitted to the EPA Region 7 laboratory for analyses with the DPT groundwater, exterior soil-gas, indoor air, ambient air, and sub-slab soil-gas field samples. For sampling of private wells, one field duplicate, two field blanks, and one trip blank were submitted to the EPA Region 7 laboratory. Deionized water provided by the EPA Region 7 laboratory was used to prepare the equipment rinsate and field blanks. The water trip blanks and the Summa canisters used as the air trip blanks were provided by the EPA Region 7 laboratory.

4.0 ANALYTICAL DATA SUMMARY

Samples collected during the SI included 11 groundwater samples, 13 exterior soil gas samples (with one ambient air sample), four surface water and sediment samples, seven surface soil samples, 28 indoor air samples (with six ambient air samples), 20 sub-slab vapor samples, and eight private water well samples. Field sheets are in Appendix E and chain-of-custody records are in Appendix F. Analytical data from the EPA Region 7 laboratory are in Appendix G. Laboratory results from the SI activities are displayed on Figures 5, 6, 7, 8, 9, 10, and 11 in Appendix A.

For interpreting analytical results, and as a guideline for determining significant contaminant levels, exterior soil-gas and sub-slab vapor results were compared to values derived from EPA's Vapor Intrusion Screening Level (VISL) calculator (EPA 2020c). Sediment and surface soil sample results were compared to the EPA's Regional Screening Levels (RSL), Removal Management Levels (RML), and Protection of Groundwater Soil Screening Levels (SSL) (EPA 2019). Groundwater (including private well) samples were compared to RSLs for Tap Water, RMLs for Tap Water, SCDM benchmarks (EPA 2020b), and federal Maximum Contaminant Levels (MCL). Surface water samples were compared to SCDM benchmarks and MCLs. Indoor air samples were compared to SCDM benchmarks, RSLs and RMLs. The following sections discuss analytical results from the SI samples analyzed by the EPA Region 7 laboratory.

4.1 DPT SOIL GAS SAMPLES

In the 11 soil gas samples and one ambient air collected at or near the site on October 4-7, 2016, six VOCs were detected at concentrations exceeding screening values. PCE was detected in five samples at concentrations ranging from 0.475 to 34,200 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). One sample (7219-13, in the oil pit location on site) contained PCE (at 34,200 $\mu\text{g}/\text{m}^3$) above the EPA residential sub-slab VISL of 360 $\mu\text{g}/\text{m}^3$ and commercial VISL of 1,570 $\mu\text{g}/\text{m}^3$. TCE was also detected in sample 7219-13 at a concentration of 1,080,000 $\mu\text{g}/\text{m}^3$, exceeding the EPA residential soil gas VISL of 16 $\mu\text{g}/\text{m}^3$ and commercial VISL of 100 $\mu\text{g}/\text{m}^3$. Benzene was detected above the EPA residential soil gas VISL of 12 $\mu\text{g}/\text{m}^3$ in one sample (7219-9 at a concentration of 33.7 $\mu\text{g}/\text{m}^3$). Chloroform was detected above the EPA residential sub-slab VISL of 4 $\mu\text{g}/\text{m}^3$ in two samples (7219-3 [at 36.3 $\mu\text{g}/\text{m}^3$] and 7219-8 [at 10.6 $\mu\text{g}/\text{m}^3$]). Naphthalene was detected above the EPA residential sub-slab VISL of 3 $\mu\text{g}/\text{m}^3$ in two samples (the background sample 7219-1 [at 4.77 $\mu\text{g}/\text{m}^3$] and 7219-7 [at 5.5 $\mu\text{g}/\text{m}^3$]). 1,1,1-Trichloroethane (TCA) was detected above the EPA residential sub-slab VISL of 174,000 $\mu\text{g}/\text{m}^3$ in one sample (7219-13 at 538,000 $\mu\text{g}/\text{m}^3$). No other VOCs were detected at concentrations exceeding any of the EPA soil gas

VISLs. A soil-gas sample results map is in Appendix A, Figure 5. A summary of analytical results from the soil-gas samples collected is in Table 11 below. The complete laboratory data package for ASR 7219 is in Appendix G.

4.2 DPT GROUNDWATER SAMPLES

In the 13 DPT groundwater samples collected at or near the site during October 4-7, 2016, 12 VOCs, two SVOCs, and seven total metals (two dissolved metals) were detected at concentrations exceeding screening values. PCE was detected in three samples at concentrations ranging from 1.3 to 83 µg/L. Two samples (7219-213 and 7219-214) contained PCE above its EPA MCL of 5 µg/L at concentrations of 83 and 15 µg/L, respectively. TCE was detected in three samples (7219-213 [6,800 µg/L], 7219-214 [600 µg/L], and 7219-215 [60 µg/L]) at concentrations exceeding its MCL of 5 µg/L. All three detections of PCE and TCE were from the samples collected on site in the former oil pit and landfill area.

Additionally, at one or more of these three sample locations, the VOCs benzene, chloroethane, 1,1-dichloroethane (DCA), 1,2-DCA, 1,2-dichloroethene (DCE), *cis*-1,2-DCE, ethylbenzene, toluene, and vinyl chloride were detected at levels above one or more of their MCLs, RSLs for Tap Water, RMLs for Tap Water, and/or SCDM benchmarks. The only other sample yielding VOC detections exceeding any screening values was sample 7219-201 in which benzene was detected at 1.3 J µg/L, exceeding only the RSL for tap water of 0.46 µg/L, and vinyl chloride was detected at 8.0 J µg/L, exceeding its MCL of 2 µg/L.

TPH-GRO was detected in samples 7219-213 (75.7 mg/L), 7219-214 (4.23 mg/L), and 7219-215 (2.63 mg/L) collected in the former oil pit and landfill areas. The SVOC 1,4-dioxane was detected at concentrations exceeding screening benchmarks in samples 7219-213 (160 µg/L), 7219-214 (3.2 µg/L), and 7219-215 (60 µg/L) collected in the former oil pit and landfill areas. Naphthalene was detected above its RSL for tap water in one sample (7219-213 [10 µg/L]) collected in the former oil pit. No other samples yielded detections of SVOCs.

The total metals arsenic (total and dissolved), beryllium, chromium, cobalt, lead, manganese (total and dissolved), and/or vanadium were detected at concentrations exceeding screening benchmarks in seven samples, with highest concentrations in samples collected in the former oil pit and landfill areas.

No herbicides, pesticides, or PCBs were detected at levels above screening benchmarks in any samples. A DPT groundwater sample results map is in Appendix A, Figure 6. A summary of analytical results from the groundwater samples collected is in Table 12 below. The complete laboratory data package for ASR 7219 is in Appendix G.

TABLE 11

**SUMMARY OF DPT SOIL-GAS SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

EPA Sample ID	Sample Date	Sample Time	Sample Depth (ft bgs)	VOCs ($\mu\text{g}/\text{m}^3$)																							
				Acetone	Benzene	2-Butanone	Carbon Disulfide	Carbon Tetrachloride	Chloroform	1,1-Dichloroethene	cis-1,2-Dichloroethene	Ethyl Benzene	Heptane	Hexane	Methylene Chloride	4-Methyl-2-Pentanone	Naphthalene	PCE	Toluene	1,1,1-Trichloroethane	TCE	1,1,2-Trichlorotrifluoroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m and/or p-Xylene	o-Xylene	
7219-1	10/4/16	14:45	4-5	45.1	2.4	8.87	2.49	ND	ND	ND	ND	4.69	5.61	5.32	ND	ND	4.77	0.475	9.42	ND	ND	ND	11.8	2.9	17.3	5.9	
7219-2	10/4/16	16:20	4-5	40.4	1.92	7.99	ND	0.44	ND	ND	ND	2.91	2.21	3.42	ND	ND	ND	ND	5.27	ND	ND	ND	8.5	ND	11.9	4.04	
7219-3	10/5/16	07:25	4-5	14.9	1.98	ND	ND	ND	36.3	ND	ND	7.81	23	30.4	ND	ND	ND	ND	13.6	ND	ND	ND	8.89	ND	16.7	6.21	
7219-4	10/5/16	08:45	4-5	39.2	1.05	10.1	3.8	ND	ND	ND	ND	3.34	2.46	3.52	ND	ND	ND	ND	6.06	ND	ND	ND	106	7.27	ND	12.8	4.12
7219-5	10/5/16	11:50	4-5	57.5	2.27	14.9	ND	0.44	ND	ND	ND	2.86	2.58	8.17	19.9	ND	ND	ND	5.76	ND	ND	ND	ND	6.49	ND	11.4	3.73
7219-6	10/5/16	13:40	4-5	15.8	0.543	3.07	ND	ND	2.49	ND	ND	ND	ND	14.8	65.3	ND	ND	1.22	3.09	ND	ND	ND	ND	4.86	ND	7.29	2.52
7219-7	10/5/16	15:25	4-5	137	5.56	31	5.01	ND	2.88	ND	ND	14.4	13.6	21.5	48.9	2.99	5.5	1.15	27.5	ND	ND	ND	ND	27.7	7.42	54.7	18.4
7219-8	10/5/16	17:00	4-5	46.9	0.703	10.4	ND	ND	10.6	ND	ND	2.34	ND	3.84	ND	ND	ND	ND	4.52	ND	ND	ND	ND	5.55	ND	9.33	3.08
7219-9	10/5/16	17:52	4-5	59	33.7	19.1	ND	ND	ND	ND	ND	5.16	22.3	71.9	ND	ND	ND	ND	19.6	ND	ND	ND	ND	13.1	3.29	20.7	6.86
7219-10	10/6/16	08:40	4-5	27.3	0.766	6.81	ND	ND	ND	ND	ND	ND	2.09	2.68	ND	ND	ND	ND	3.47	ND	ND	ND	ND	3.88	ND	7.16	2.34
7219-11	10/6/16	10:35	4-5	54.1	1.18	10.5	ND	0.44	ND	ND	ND	2.3	2.25	3.31	ND	ND	ND	ND	5.2	ND	ND	ND	ND	5.06	ND	9.03	2.99
7219-12	10/6/16	13:42	4-5	36.2	1.63	8.7	2.46	ND	ND	ND	ND	4.34	4.67	8.07	ND	ND	2.72	0.746	7.16	ND	ND	ND	ND	11.2	2.7	17.4	5.95
7219-13	10/7/16	08:00	4-5	ND	ND	ND	ND	ND	ND	6,600	22,100	ND	ND	ND	ND	ND	34,200	ND	5.38E+5	1.08E+6	ND	ND	ND	ND	ND	ND	
VISL – Residential (cancer risk = 1.0E-6)				1.07E+6	12	1.74E+5	24,300	16	4	6,950	NE	37	13,900	24,300	3,380	1.04E+5	3	360	1.74E+5	1.74E+5	16	1.74E+5	2,090	2,090	3,480	3,480	
VISL – Commercial (cancer risk = 1.0E-6)				4.51E+6	52	7.3E+5	1.02E+5	68	18	29,200	NE	164	58,400	1.02E+5	40,900	4.38E+5	12	1,570	7.3E+5	7.3E+5	100	7.3E+5	8,760	8,760	14,600	15,000	
VISL – Residential (cancer risk = 1.0E-4)				1.07E+6	1,040	1.74E+5	24,300	1,560	407	6,950	NE	3,740	13,900	24,300	20,900	1.04E+5	104	1,390	1.74E+5	1.74E+5	70	1.74E+5	2,090	2,090	3,480	3,480	
VISL – Commercial (cancer risk = 1.0E-4)				4.51E+6	4,380	7.3E+5	1.02E+5	6,810	1,780	29,200	NE	16,400	58,400	1.02E+5	87,600	4.38E+5	438	5,840	7.3E+5	7.3E+5	292	7.3E+5	8,760	8,760	14,600	14,600	

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

bgs Below ground surface

 $\mu\text{g}/\text{m}^3$ Micrograms per cubic meter

DPT Direct-push technology

ND Not detected

EPA U.S. Environmental Protection Agency

NE Not established

ft Feet

PCE Tetrachloroethene

ID Identification

TCE Trichloroethene

VISL Vapor intrusion screening level target sub-slab and near-source soil gas concentration (hazard quotient for non-carcinogens = 1)

VOC Volatile organic compound

TABLE 12
SUMMARY OF DPT GROUNDWATER SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

bgs	Below ground surface	J	Estimated value	PCE	Tetrachloroethene
CR	Cancer Risk	MCL	Maximum Contaminant Level	RML	Removal Management Level
D	Dichlorophenoxyacetic acid	µg/L	Micrograms per liter	RSL	Regional Screening Level
DPT	Direct-push technology	mg/L	Milligrams per liter	SVOC	Semivolatile organic compound
EPA	U.S. Environmental Protection Agency	NCR	Non-Cancer Risk	SCDM	Superfund Chemical Data Matrix
ft	Feet	NA	Not analyzed	TPH	Total petroleum hydrocarbons
GRO	Gasoline-range organics	ND	Not detected	TCE	Trichloroethene
ID	Identification	NE	Not established	VOC	Volatile organic compound

4.3 SURFACE SOIL SAMPLES

In the seven surface soil samples collected on the site on October 7, 2016, five SVOCs, 18 metals, 14 pesticides, and one PCB were detected. No VOC was detected in any sample. One SVOC (benzo(b)fluoranthene) was detected in one sample (7219-110 [at 400 mg/kg]) above the Protection of Groundwater SSL. All SVOC concentrations were below their respective RSLs and RMLs for industrial soil. Arsenic, barium, cadmium, cobalt, iron, lead, manganese, and mercury were detected at concentrations exceeding Protection of Groundwater Risk-Based and/or MCL-Based SSLs. However, all metals detections were below their respective RSLs and RMLs for industrial soil except for arsenic, which exceeded its RSL of 3 mg/kg in all five samples. Six pesticides were detected at concentrations exceeding Protection of Groundwater SSLs. All pesticide concentrations were below the RSLs and RMLs for industrial soil. The PCB Aroclor 1254 was detected in four samples (former oil pit and landfill area) above its Protection of Groundwater SSL, but below its RSL and RML for industrial soil. TPH-DRO and TPH-ORO were detected in one sample (7219-108 in the former landfill area) at concentrations of 25.9 and 151 mg/kg, respectively. A surface soil results map is in Appendix A, Figure 7. A summary of analytical results from the surface soil samples collected is in Table 13. The complete laboratory data package for ASR 7219 is in Appendix G.

TABLE 13

**SUMMARY OF SURFACE SOIL SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

	EPA Sample ID	Sample Depth (ft bgs)	Metals (mg/kg)															Pesticides (µg/kg)										PCBs (µg/kg)	SVOCs (µg/kg)				TPH (mg/kg)								
			Aluminum	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Vanadium	Zinc	Aldrin	B-BHC	cis-Chlordane	trans-Chlordane	p,p'-DDD	p,p'-DDE	p,p'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endrin	Endrin Aldehyde	Heptachlor Epoxide	Aroclor 1254	Benzo(b)fluoranthene	bis(2-Ethyhexyl)phthalate	Chrysene	Fluoranthene	Pyrene	TPH DRO	TPH ORO
7219-105	0-0.5	7,580	6.0	159	0.58	3.9	4,110	15.1	8.6	20.3	14,200	306	1,850	764	0.74	17.2	1,500	22.5	123	61	11	ND	ND	17	19J	21	87	84	86	48	14	ND	2.8	560	ND	ND	ND	ND	ND		
7219-106	0-0.5	7,100	47J	91.4	0.56	0.78	6,880	10.8	7.6	14.4	14,900	254	4,000	472	ND	16.2	728	21.3	49.3	ND	3.4	ND	ND	ND	71	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7219-107	0-0.5	1,900	14J	41.5	ND	0.78	4,360	13.6	4.8	19.2	9,880	75.9	1,390	165	ND	7.5	ND	ND	112	ND	ND	2.0	3.6	ND	ND	8.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7219-108	0-0.5	7,500	30J	77.1	0.64	3.0	3,260	21.0	9.3	21.8	18,800	71.1	1,600	490	0.16	18.1	760	20.5	72.1	ND	ND	2.3	7.2	6.4	4.1	32	5.4	ND	ND	ND	32	5.6J	ND	300	ND	ND	ND	ND	220	25.9	151
7219-109	0-0.5	5,250	37J	110	ND	0.58	8,990	8.2	5.8	11.1	11,300	10.8	3,820	506	ND	12.5	678	17.6	36.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
7219-110	0-0.5	6,140	42J	91.9	ND	0.65	14,100	9.5	6.5	12.4	11,900	11.3	6,280	458	ND	13.8	668	20.4	37.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	400	ND	250	470	380	ND	ND		
7219-111	0-0.5	5,900	34J	97.7	ND	0.61	12,300	9.3	6.0	13.4	12,000	11.0	5,590	435	ND	13.6	1,140	19.6	44.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
RSL for Industrial Soil		11E+6	3	2.2E+5	2,300	980	NE	NE	350	47,000	8.2E+5	800	NE	26,000	46	22,000	NE	5,800	3.5E+5	180	1,300	NE	NE	9,600	9,300	8,500	140	7.0E+6	7.0E+6	2.5E+5	NE	NE	330	970	21,000	1.6E+5	2.1E+6	3.0E+7	2.3E+7	NE	NE
Protection of Groundwater Risk-Based SSL		30,000	1,500	160	19	0.69	NE	NE	0.27	280	350	NE	NE	28	0.033	26	NE	86	370	0.15	0.15	NE	NE	7.5	11	77	0.071	1,400	1,400	92	NE	NE	0.028	2	300	1,300	9,000	89,000	13,000	NE	NE
Protection of Groundwater MCL-Based SSL		NE	0.29	82	3.2	0.38	NE	1.8E+05	NE	460	NE	14	NE	NE	0.1	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
RML for Industrial Soil		34E+6	300	6.5E+5	6,900	2,900	NE	NE	1,000	1.4E+5	2.5E+6	800	NE	77,000	140	67,000	NE	17,000	1.1E+6	18,000	1.3E+5	NE	NE	74,000	9.3E+5	8.5E+5	14,000	2.1E+7	2.1E+7	7.4E+5	NE	NE	33,000	44,000	2.1E+6	1.6E+7	2.1E+8	9.0E+7	6.8E+7	NE	NE

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

bgs	Below ground surface	ft	Feet	ORO	Oil-range organics
B	Beta	ID	Identification	PCB	Polychlorinated biphenyl
BHC	Hexachlorocyclohexane	J	Estimated value	RML	Removal Management Level
DDD	Dichlorodiphenyldichloroethane	MCL	Maximum Contaminant Level	RSL	Regional Screening Level
DDE	Dichlorodiphenyldichloroethene	µg/kg	Micrograms per kilogram	SVOC	Semivolatile organic compound
DDT	Dichlorodiphenyltrichloroethane	mg/kg	Milligrams per kilogram	SSL	Soil Screening Level
DRO	Diesel-range organics	ND	Not detected	TPH	Total petroleum hydrocarbons
EPA	U.S. Environmental Protection Agency	NE	Not established		

4.4 SURFACE WATER AND SEDIMENT SAMPLES

In all four surface water samples collected along the creek running west to east on the southern portion of the site, four total metals were detected at concentrations exceeding screening values. PCE and TCE were not detected in any sample. No sample yielded detections of VOCs, SVOCs, or herbicides at concentrations above screening levels. Arsenic (total and dissolved), chromium, cobalt, and manganese were detected at concentrations exceeding SCDM screening benchmarks for drinking water; however, all detections were below their respective MCLs.

In the four sediment samples collocated with the surface water samples, five SVOCs, seven metals, and one pesticide were detected at concentrations exceeding screening values. PCE and TCE were not detected in any sample. No sample yielded a detection of a VOC at concentration above a screening level. Five SVOCs were detected in two samples (7219-101 and 7219-104) at concentrations above the Protection of Groundwater SSLs; however, all SVOC concentrations were below their RSLs and RMLs for industrial soil. Arsenic, barium, cadmium, cobalt, iron, manganese, and silver were detected at concentrations exceeding Protection of Groundwater Risk-Based and/or MCL-Based SSLs. However, all metals detections were below their respective RSLs and RMLs for industrial soil except for arsenic, which exceeded its RSL of 3 mg/kg in all four samples. One pesticide was detected in two samples (7219-102 and 7219-104) at concentrations exceeding its Protection of Groundwater SSL, but below its RSL and RML for industrial soil. TPH-ORO was detected in one sample (7219-101) at 138 mg/kg.

A surface water results map is in Appendix A, Figure 8, and a sediment results map is in Appendix A, Figure 9. Summaries of analytical results from the surface water and sediment samples collected are in Tables 14 and 15, respectively, below. The complete laboratory data package for ASR 7219 is in Appendix G.

TABLE 14
SUMMARY OF SURFACE WATER SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA

EPA Sample ID	Sample Date	Metals - Dissolved (µg/L)						Metals - Total (µg/L)								Herbicides (µg/L)	VOCs (µg/L)			
		Arsenic	Barium	Copper	Manganese	Nickel	Zinc	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Manganese	Nickel	Vanadium	Zinc			
7219-208	10/6/16	1.4	78.1	ND	126	1.1	ND	1.7	86.2	ND	ND	2.6	ND	189	1.3	ND	8.4	4.3	6.3	0.59
7219-209	10/6/16	1.7	52.1	2.1	171	1.1	8.9	1.7	57.2	ND	ND	2.5	ND	242	1.1	ND	ND	4.7	7.8	ND
7219-211	10/6/16	2.0	96.2	ND	1,530	3.8	10.1	6.7	647	6.8	8.8	12.1	3.7	4,960	15.9	10.3	43.8	ND	5.0	ND
7219-212	10/6/16	1.9	56.1	5.9	28.2	1.8	10.1	2.1	59.7	2.3	ND	6.8	ND	38.3	2.4	ND	13.6	2.9	ND	ND
SCDM CR for Drinking Water		0.052	NE	NE	NE	NE	NE	0.052	NE	0.05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
SCDM NCR for Drinking Water		6	4,000	800	2,800	400	6,000	6	4,000	60	6	800	NE	2,800	400	101	6,000	NE	11,000	40
MCL		10	2,000	1,300	NE	NE	NE	10	2,000	100	NE	1,300	15	NE	NE	NE	NE	70	NE	70

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

CR	Cancer Risk	NCR	Non-Cancer Risk
D	Dichlorophenoxyacetic acid	ND	Not detected
EPA	U.S. Environmental Protection	NE	Not established
ID	Identification	SCDM	Superfund Chemical Data Matrix
MCL	Maximum Contaminant Level	VOC	Volatile organic compound
µg/L	Micrograms per liter		

TABLE 15

**SUMMARY OF SEDIMENT SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

EPA Sample ID	Sample Depth (ft bgs)	Metals (mg/kg)															Pesticides (µg/kg)				SVOCs (µg/kg)				TPH (mg/kg)			VOCs (µg/kg)											
		Aluminum	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel	Potassium	Silver	Sodium	Vanadium	Zinc	B-HxC	p,p'-DDE	Endrin Aldehyde	Acenaphthene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	4-Chloro-3-methylphenol	2-Chlorophenol	Chrysene	2,4-Dinitrotoluene	Fluoranthene	Indeno(1,2,3-cd)pyrene	4-Nitrophenol	Phenanthrene	Pyrene	TPH ORO	Acetone	2-Butanone
7219-101	0-0.5	8,390	4.6 J	116	0.64	0.86	12,700	12.7	7.8	16.9	17,300	13.1	5,260	648	17.3	697	ND	ND	24.0	52.7	ND	ND	660 J	ND	ND	390	660 J	600 J	ND	610 J	ND	ND	1,000 J	138	ND	ND			
7219-102	0-0.5	7,690	4.0 J	107	0.60	0.69	7,870	11.4	7.1	13.8	14,500	11.8	3,610	372	15.8	615	ND	ND	23.0	40.4	6.0	9.1 J	6.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
7219-103	0-0.5	8,380	14.6	274	0.80	1.5	5,650	10.6	15.3	14.1	30,100	12.1	3,190	2,630	19.8	599	1.3	ND	23.3	45.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150	21				
7219-104	0-0.5	8,160	4.1 J	118	0.60	0.63	7,060	20.3	8.7	13.6	14,600	11.7	3,410	379	16.0	936	ND	650	25.4	39.7	2.5	ND	ND	ND	280	240	420	ND	ND	340	ND	860	230	ND	620	720	ND	78	20
RSL for Industrial Soil		1.1E+6	3	2.2E+5	2,300	980	NE	NE	350	47,000	8.2E+5	800	NE	26,000	22,000	NE	5,800	NE	5,800	3.5E+5	1,300	9,300	NE	4.5E+7	21,000	2,100	21,000	8.2E+7	5.8E+6	2.1E+6	7,400	3.0E+7	21,000	NE	NE	2.3E+7	NE	6.7E+8	1.9E+8
Protection of Groundwater Risk-Based SSL		30,000	1,500	160	19	0.69	NE	NE	0.27	280	350	NE	NE	28	26	NE	0.8	NE	86	370	0.15	11	NE	5,500	11	29	300	1,700	89	9,000	0.32	89,000	980	NE	NE	13,000	NE	2,900	1,200
Protection of Groundwater MCL-Based SSL		NE	0.29	82	3.2	0.38	NE	1.8E+05	NE	460	NE	14	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	240	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE				
RML for Industrial Soil		3.4E+6	300	6.5E+5	6,900	2,900	NE	NE	1,000	1.4E+5	2.5E+6	800	NE	77,000	67,000	NE	18,000	NE	17,000	1.1E+6	1.3E+5	9.3E+5	NE	1.4E+8	2.1E+6	2.1E+5	2.1E+6	2.5E+8	1.8E+7	2.1E+8	7.4E+5	9.0E+7	2.1E+6	NE	NE	6.8E+7	NE	2.0E+9	5.8E+8

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

bgs	Below ground surface	J	Estimated value	RML	Removal Management Level
B	Beta	MCL	Maximum Contaminant Level	RSL	Regional Screening Level
BHC	Hexachlorocyclohexane	µg/kg	Micrograms per kilogram	SVOC	Semivolatile organic compound
DDE	Dichlorodiphenyldichloroethene	mg/kg	Milligrams per kilogram	SSL	Soil Screening Level
EPA	U.S. Environmental Protection Agency	ND	Not detected	TPH	Total petroleum hydrocarbons
ft	Feet	NE	Not established	VOC	Volatile organic compound
ID	Identification	ORO	Oil-range organics		

4.5 INDOOR AIR AND AMBIENT AIR SAMPLES

In the 28 indoor air samples collected during March 19-21, 2018, and during August 21-22, 2018 (two sampling events), 38 VOCs were detected. Thirteen VOCs were detected at concentrations above their respective SCDM Subsurface Intrusion (SsI) Cancer Risk (CR) benchmarks (or Residential RSL if a SCDM SsI benchmark had not been established). Compounds exceeding the benchmarks were benzene (all 28 samples), 1,3-butadiene (2 samples), carbon tetrachloride (26 samples), chloroform (all 28 samples), 1,4-dichlorobenzene (1 sample), 1,2-dichloroethane (26 samples), ethyl acetate (18 samples), ethyl benzene (13 samples), 2-propanol (14 samples), PCE (4 samples), 1,2,4-trimethylbenzene (5 samples), m,p-xylene (5 samples) and o-xylene (3 samples). One residential indoor air sample (sample 7782-12, collected from the living room of (b) (6) on March 20, 2018) contained PCE at 24 $\mu\text{g}/\text{m}^3$, above the SCDM SsI CR benchmark of 10.8 $\mu\text{g}/\text{m}^3$. When this address was sampled again on August 21, 2018, the sample (7917-9) contained PCE at 10 $\mu\text{g}/\text{m}^3$. No other residential indoor air sample contained PCE at a concentration above the SCDM benchmark.

Twenty-one VOCs were detected in the six ambient air samples. Benzene, carbon tetrachloride, chloroform, and ethylbenzene were detected in the ambient air samples at concentrations exceeding their SCDM SsI CRs. TCE was not detected in any indoor air or ambient air sample. Vapor intrusion sample results are shown on Figure 10 in Appendix A. A summary of analytical results from the indoor air samples collected is in Table 16 below. The complete laboratory data packages for ASR 7782 and 7917 are in Appendix G.

TABLE 16
SUMMARY OF INDOOR AIR AND AMBIENT AIR SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA

EPA Sample ID	Sample Collection				VOCs ($\mu\text{g}/\text{m}^3$)																																						
	Start		End																																								
	Date	Time	Date	Time																																							
7782-2	03/19/18	15:15	03/20/18	14:40	19	ND	0.46	ND	2.7	ND	0.63 J	0.31	1.8	ND	ND	3.4	0.17	ND	ND	1.2	ND	ND	ND	ND	ND	7.9 J	0.86	ND	ND	ND	2.9	ND	1.8	ND	ND	ND	1.2 J	ND	ND	ND			
7782-3	03/19/18	15:50	03/20/18	15:20	22	ND	1.7	0.53	4.2	ND	0.68 J	0.70	2.8	ND	ND	3.0	0.31	ND	ND	4.1	ND	ND	ND	0.79	ND	ND	ND	4.5 J	3.6	ND	ND	ND	4.9	ND	2.7	ND	ND	ND	3.2 J	ND	2.1	ND	
7782-4	03/20/18	08:26	03/21/18	08:02	21	ND	0.50	ND	2.7	ND	0.63 J	0.23	1.8	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23 J	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
7782-7	03/20/18	08:39	03/21/18	07:50	32	ND	0.50	ND	2.6	ND	0.65 J	0.41	1.4	ND	ND	15	ND	ND	0.55	6.8	ND	ND	ND	ND	ND	ND	ND	44 J	0.92	ND	0.67	ND	4.2	ND	2.7	1.5 J	ND	ND	ND	4.2 J	ND	ND	ND
7782-10	03/20/18	09:22	03/21/18	08:39	64	ND	3.4	ND	18	ND	0.62 J	0.89	1.8	1.4	ND	3.3	3.2	ND	ND	11	2.1	ND	2.4	6.8	ND	1.2	ND	210 J	4.4	ND	ND	7.7 J	15	ND	3.8	3.2 J	ND	1.3	ND	ND	7.8	2.6	
7782-12	03/20/18	10:19	03/21/18	09:26	46	ND	8.1	ND	18	ND	0.59 J	0.45	2.0	2.5	ND	7.5	0.18	ND	ND	15	5.1	ND	5.1	15	ND	17	ND	33 J	3.0	2.1 J	24	0.72 J	42	ND	1.6	7.2 J	13 J	5.8	ND	ND	19	6.2	
7782-14	03/20/18	10:47	03/21/18	09:40	33	ND	0.64	ND	4.5	ND	0.61 J	1.1	1.7	ND	ND	3.1	0.14	ND	ND	9.6	ND	ND	ND	ND	ND	ND	ND	7.1 J	1.0	ND	ND	ND	2.2	ND	1.7	ND	ND	ND	4.2 J	ND	ND	ND	
7782-15	03/20/18	12:13	03/21/18	11:32	66	ND	4.4	ND	8.5 J	ND	0.53	0.54	1.2	3.2	ND	2.4	0.17	ND	ND	3.9	1.8	ND	3.6	10	ND	ND	ND	8.3 J	2.4	ND	1.9	11 J	21 J	ND	14	2.6 J	ND	3.0	ND	ND	7.8	2.4	
7782-17	03/20/18	12:50	03/21/18	11:57	41	ND	0.63	ND	5.3 J	ND	0.52	1.5	1.4	ND	ND	2.7	1.2	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	63 J	1.2	ND	1.2	1.3 J	6.5 J	ND	1.6	ND	ND	1.1	4.3 J	ND	ND	ND	
7782-19	03/20/18	17:20	03/21/18	16:53	46	ND	3.8	ND	16 J	5.9	0.51	1.2	1.5	2.1	ND	2.6	0.55	ND	ND	5.6	2.1	ND	3.0	7.3	ND	9.6	ND	9.6 J	6.3	ND	ND	3.3 J	17 J	ND	1.4	3.0 J	ND	1.7	6.0 J	ND	8.0	2.8	
7782-21	03/21/18	14:20	03/22/18	13:50	36	ND	1.2	ND	2.8 J	ND	0.53	1.8	1.5	0.85	ND	2.8	0.15	ND	ND	41	2.2	ND	2.3	2.7	ND	0.94	ND	8.8 J	4.9	ND	0.54	ND	11 J	ND	1.6	3.0 J	ND	5.4	7.6 J	ND	9.3	3.5	
7782-23	03/21/18	15:01	03/22/18	14:04	20	ND	0.57	ND	2.1 J	ND	0.55	0.17	1.3	ND	ND	2.6	0.89	ND	ND	6.6	ND	ND	ND	ND	ND	ND	ND	5.8 J	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
7782-26	03/21/18	20:52	03/22/18	19:55	21	ND	0.87	ND	2.4 J	ND	0.55	1.4	1.4	ND	ND	2.9	0.22	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	7.4 J	1.7	ND	ND	ND	19 J	ND	1.6	ND	ND	2.0 J	ND	ND	ND		
7917-1	08/21/18	09:45	08/22/18	09:15	190	ND	6.9	ND	29	ND	0.72 J	1.8	1.9	1.6	55	2.7	3.4	0.73	ND	7.2	14	4.4	6.2	8.0	ND	8.8	4.3 J	20	2.6	3.1	0.52	6.4 J	76	19	28	15	3.6	25	13 J	ND	46	16	
7917-3	08/21/18	10:08	08/22/18	09:39	150 J	ND	1.3	ND	15	ND	1.2 J	3.8	1.7	ND	ND	2.6	0.63	ND	ND	120 J	2.1	ND	1.6	1.5	ND	ND	4.8 J	44	11	21	0.36	1.9 J	12	ND	2.0	1.5	ND	8.3	10 J	ND	6.5	2.2	
7917-4	08/21/18	10:06	08/22/18	09:38	150	ND	1.3	ND	15	ND	1.2 J	3.6	1.8	ND	ND	2.5	0.52	ND	ND	89	2.1	ND	1.6 J	1.4	ND	ND	4.3 J	42	10	20 J	0.34	1.8 J	12 J	ND	2.0	1.5	ND	7.2 J	9.8 J	ND	6.4	2.2	
7917-5	08/21/18	10:36	08/22/18	10:03	100	ND	0.75	ND	7.7	ND	0.66 J	1.6	1.6	ND	ND	39	0.16	ND	1.8	9.4	ND	ND	0.86 J	1.4	ND	ND	ND	120	1.9	1.5 J	7.1	ND	14 J	ND	11	ND	ND	10 J	ND	ND	ND		
7917-6	08/21/18	10:44	08/22/18	10:11	88																																						

TABLE 16 (Continued)

**SUMMARY OF INDOOR AIR AND AMBIENT AIR SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

CR	Cancer Risk	NE	Not established
EPA	U.S. Environmental Protection Agency	PCE	Tetrachloroethene
ID	Identification	RML	Removal Management Level
J	Estimated value	RSL	Regional Screening Level
MIBC	Methyl isobutyl carbinol	SCDM	Superfund Chemical Data
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter	SsI	Subsurface intrusion
NCR	Non-Cancer Risk	VOC	Volatile organic compound
ND	Not detected		

4.6 SUB-SLAB VAPOR SAMPLES

In the 20 sub-slab vapor samples collected during March 19-21 and August 21-22, 2018 (two sampling events), 30 VOCs were detected. PCE was detected in 10 sub-slab vapor samples at concentrations ranging from 0.80 to 1,100 $\mu\text{g}/\text{m}^3$. One sample (7917-16, collected from the basement port at 3412 Crown Point Circle in August 2018) contained PCE at 1,100 $\mu\text{g}/\text{m}^3$, above the EPA residential sub-slab VISL of 360 $\mu\text{g}/\text{m}^3$. PCE had not been detected in the sample collected at this location during the previous sampling event in March 2018 (7782-25). Chloroform was detected in one sample (7917-7, collected from the basement port at 4250 Middle Road on August 22, 2018) at a concentration of 8.3 $\mu\text{g}/\text{m}^3$, above the EPA residential sub-slab VISL of 4 $\mu\text{g}/\text{m}^3$. Chloroform concentration had been below the EPA residential sub-slab VISL in the sample collected there during the previous sampling event in March 2018 (7782-5). TCE was not detected in any sub-slab vapor sample. Vapor intrusion sample results are shown on Figure 10 in Appendix A. A summary of analytical results from the sub-slab samples collected is in Table 17 below. The complete laboratory data packages for ASR 7782 and 7917 are in Appendix G.

TABLE 17

**SUMMARY OF SUB-SLAB VAPOR SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

EPA Sample ID	Sample Collection				VOCs ($\mu\text{g}/\text{m}^3$)																														
	Start		End		Acetone	Benzene	2-Butanone	Carbon Disulfide	Carbon Tetrachloride	Chloroform	Chloromethane	Cyclohexane	Dichlorodifluoromethane	1,2-Dichloroethane	Ethyl Acetate	Ethyl Benzene	4-Ethyltoluene	Heptane	Hexane	Methylene Chloride	4-Methyl-2-Pentanone	2-Propanol	Propene	Styrene	PCE	Tetrahydrofuran	Toluene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2,2,4-Trimethylpentane	Vinyl Acetate	m and/or p-Xylene	o-Xylene	
	Date	Time	Date	Time																															
7782-1	03/19/18	15:15	03/20/18	14:39	55	0.56	ND	ND	0.63 J	ND	ND	ND	32	ND	ND	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.1	1.9	5.4 J	ND	ND	0.85 J	12	3.5	
7782-5	03/20/18	08:18	03/21/18	08:00	40	0.39	ND	ND	0.59 J	0.47	ND	ND	32	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.6	1.8	40 J	ND	ND	1.2 J	8.5	2.5
7782-9	03/20/18	09:20	03/21/18	08:37	15	2.6	ND	ND	0.55 J	0.18	0.65	1.3	32	0.35	ND	3.6	ND	2.8	6.8	ND	ND	0.77 J	3.1	ND	ND	ND	ND	18	4.5	6.2 J	1.2 J	12	1.3 J	14	4.4
7782-11	03/20/18	10:17	03/21/18	09:24	27	4.9	24	ND	0.67 J	0.42	1.5	0.76	51	0.12	22	3.2	ND	21	4.4	8.6	ND	29 J	8.0	1.9 J	21	0.67 J	28	1.7	6.4 J	1.1 J	9.8	ND	13	4.4	
7782-13	03/20/18	10:46	03/21/18	09:38	50	0.55	22	ND	0.54 J	ND	ND	ND	26	ND	ND	3.0	ND	ND	ND	ND	ND	0.54 J	ND	ND	ND	ND	11	1.6	8.7 J	1.5 J	ND	2.7 J	16	4.8	
7782-16	03/20/18	12:48	03/21/18	11:55	44	0.62	ND	ND	0.32	0.32	ND	ND	ND	ND	ND	2.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11 J	1.5	8.0 J	1.4 J	ND	ND	14	4.3
7782-18	03/20/18	17:18	03/21/18	16:49	33	0.50	ND	ND	ND	0.34	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	ND	ND	ND	0.80	ND	8.2 J	1.4	5.4 J	ND	ND	1.4 J	11	3.1	
7782-20	03/21/18	14:17	03/22/18	13:47	57	0.32	2.3 J	ND	ND	ND	ND	ND	2.9	ND	ND	0.93	ND	ND	ND	ND	ND	0.56 J	0.59	ND	ND	ND	3.1 J	1.4	3.7 J	ND	ND	0.91 J	55	1.6	
7782-22	03/21/18	14:58	03/22/18	14:01	21	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	ND	ND	ND	16 J	ND	ND	ND	ND	ND	ND		
7782-25	03/21/18	20:47	03/22/18	19:53	98	0.38	2.9 J	ND	0.52	0.35	0.48	ND	2.8	ND	ND	1.6	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	5.0 J	1.5	7.0 J	1.1 J	ND	3.0 J	9.3	2.8
7917-2	08/21/18	09:42	08/22/18	09:14	Not Analyzed																								22	11	21	ND	14 J	26	77
7917-7	08/21/18	10:45	08/22/18	10:10	16	0.81	4.9	ND	0.42 J	8.3	16	ND	ND	ND	ND	5.9	ND	14 J	ND	ND	ND	0.66	ND	ND	39	ND	14 J	22	11	21	ND	14 J	26	77	
7917-10	08/21/18	11:45	08/22/18	11:15	27	1.5	41	ND	0.72 J	0.28	0.53	ND	9.0	ND	ND	5.1	ND	12	1.5	3.5	ND	0.87	0.58	ND	36	ND	18	1.7	7.6	1.4	ND	ND	22	6.5	
7917-12	08/21/18	12:59	08/22/18	12:32	46	1.1	3.9	ND	0.62 J	0.92	1.0	ND	2.5	1.2	4.2	3.5	ND	12 J	0.81	1.4	ND	3.6	ND	ND	18	ND	13 J	1.7	3.5	ND	ND	2.2 J	13	3.9	
7917-14	08/21/18	16:13	08/22/18	16:08	65	0.57	40	ND	ND	0.54	ND	ND	ND	0.14	ND	3.8	ND	ND	ND	1.2	ND	0.63	ND	ND	32	ND	9.7	14	6.3	1.2	ND	0.83 J	17	5.0	
7917-16	08/21/18	16:30	08/22/18	16:21	11	0.94	2.2	0.92	0.69 J	2.2	0.92	ND	2.6	0.43	ND	5.6	ND	1.4	0.77	ND	ND	ND	2.3	ND	1,100	ND	12	1.6	11	21	ND	1.0 J	25	7.5	
7917-18	08/22/18	08:18	08/23/18	08:01	11	0.75	ND	ND	0.58 J	0.24	1.2	ND	2.5	ND	ND	ND	ND	ND	0.89	ND	ND	0.59	0.63	ND	ND	ND	2.3	1.5	ND	ND	ND	ND	ND		
7917-23	08/22/18	10:59	08/23/18	10:35	77	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.0	ND	0.96	ND	ND	ND	ND	ND	ND	ND	23	ND	8.6	1.8	8.8	1.7	ND	ND	18	6.1
7917-26	08/22/18	12:56	08/23/18	12:11	75	4.5	4.5	ND	0.32 J	0.26	0.60	4.6	ND	0.20	ND	9.7	4.8	12	12	ND	1.9	2.4	ND	ND	12	ND	49	1.6	18	3.6	9.1	ND	39	14	
7917-28	08/22/18	15:10	08/23/18	14:50	13	0.48	25	ND	ND	ND	ND	ND	ND	ND	ND	1.8	3.2	ND	0.89	ND	ND	ND	ND	ND	ND	20	ND	6.5 J	1.5	7.5	1.4	ND	1.2 J	14	5.0
VISL – Residential (cancer risk = 1.0E-6)				1.07E+6	12	1.74E+5	24,300	16	4	3,130	2.09E+5	3,																							

4.7 PRIVATE WELL SAMPLES

Samples were collected at six private drinking water wells during March 21-22 and August 23, 2018. In the eight private well groundwater samples collected over the two sampling events, three metals were detected at concentrations exceeding screening levels. Arsenic (total and dissolved), chromium (dissolved), and manganese (total) were above their respective SCDM CR benchmarks (or Residential RSL for Tap Water if a SCDM CR benchmark had not been established). All other analytes were non-detect in each sample, including PCE and TCE. No private well sample exceeded an MCL. A private well groundwater sample results map is in Appendix A, Figure 11. A summary of analytical results from the private well samples collected is in Table 18 below. The complete laboratory data packages for ASR 7782 and 7917 are in Appendix G.

TABLE 18

**SUMMARY OF PRIVATE WELL SAMPLE RESULTS
TANGLEFOOT LANE SITE, BETTENDORF, IOWA**

		Metals - Dissolved ($\mu\text{g/L}$)							Metals - Total ($\mu\text{g/L}$)							
EPA Sample ID	Sample Date	Arsenic	Barium	Chromium	Copper	Lead	Manganese	Nickel	Zinc	Arsenic	Barium	Copper	Lead	Manganese	Nickel	Zinc
7782-101	03/21/18	41	505	23	ND	ND	103	42	39	40	553	54	ND	990	36	101
7782-101-FD	03/21/18	46	518	26	ND	ND	103	43	30	41	667	60	ND	101	38	94
7782-102	03/22/18	ND	355	32	41	ND	835	36	55	ND	363	223	ND	766	298	61
7782-103	03/22/18	ND	429	25	ND	ND	250	41	59	ND	371	106	ND	240	36	60
7782-104	03/22/18	ND	200	31	400	25	62	47	294	ND	214	699	47	75	41	577
7782-105	03/22/18	ND	296	31	53	33	213	50	118	ND	336	976	144	431	47	377
7782-106	03/22/18	35	339	ND	ND	ND	144	45	133	33	344	ND	ND	140	51	399
7917-101	08/23/18	ND	293	54	127	35	130	55	195	ND	306	109	25	141	53	82
RSL for Tap Water		0.052	3,800	NE	800	15	430	390	6,000	0.052	3,800	800	15	430	390	6,000
RML for Tap Water		52	11,000	NE	2,400	15	1,300	1,200	18,000	52	11,000	2,400	15	1,300	1,200	18,000
SCDM CR		0.051	NE	0.05	NE	NE	NE	NE	NE	0.051	NE	NE	NE	NE	NE	NE
SCDM NCR		6	4,000	60	800	NE	2,800	400	6,000	6	4,000	800	NE	2,800	400	6,000
MCL		10	2,000	100	1,300	15	NE	NE	NE	10	2,000	1,300	15	NE	NE	NE

Notes:

Shaded result exceeds at least one of the listed screening levels.

Only analytes detected in at least one sample are included in the table.

CR	Cancer risk	MCL	Maximum contaminant level	NE	Not established
EPA	U.S. Environmental	$\mu\text{g/L}$	Micrograms per liter	RML	Removal Management Level
FD	Field duplicate	NCR	Non-cancer risk	RSL	Regional Screening Level
ID	Identification	ND	Not detected	SCDM	Superfund Chemical Data Matrix

4.8 QUALITY CONTROL SAMPLES

QC samples for the SI included one equipment rinsate sample of the decontaminated Geoprobe groundwater sampling apparatus, one water trip blank, and one air trip blank (evacuated Summa canister) for the DPT groundwater and exterior soil gas field samples. One air trip blank accompanied the indoor air, ambient air, and sub-slab soil gas field samples. For sampling of private wells, one field duplicate, two field blanks, and one trip blank accompanied the groundwater samples.

In the equipment rinsate sample (7219-216) 1,4-dioxane was detected at 2.4 µg/L and chloroform was detected at 2.4 µg/L. TCE was detected at 4.67 µg/m³ in the air field blank sample (7219-18-FB), in addition to trace amounts of hexane and 1,1,1-TCA. The water field blank sample (7782-113-FB) yielded a trace detection of zinc. The water field blank sample (7917-102-FB) yielded trace detections of chloroform and zinc. No other detections in aqueous or air QA/QC samples occurred.

5.0 HAZARD RANKING SYSTEM FACTORS

This section discusses sources of contamination and contaminant migration pathways evaluated under the HRS.

5.1 SOURCES OF CONTAMINATION

START collected groundwater and surface soil samples within, adjacent to, crossgradient and downgradient of suspected source areas at the site to delineate extents of contamination. Some of the most significant contaminants concentrations detected during SI sampling were associated with PCE, TCE and their respective breakdown products. Analytical results suggest that the main sources of contamination are likely in close proximity to the landfill and oil pit areas of the site where disposal of various substances is known to have occurred (see Appendix A, Figure 2). The landfill was estimated to be 8,850 cubic yards in size and the oil pit encompassed an estimated 667 cubic yards. Hazardous constituents associated with these two sources include: VOCs benzene, chloroethane, 1,4 dichlorobenzene, PCE, TCE, 1,2 DCA, 1,1-DCE, ethylbenzene, naphthalene, toluene, 1,1,1-TCA, and vinyl chloride; several SVOCs including 1,4-dioxane and PAH compounds; the PCB Aroclor 1254; and pesticides dieldrin, aldrin, beta-BHC, p,p'-DDD and p,p'-DDE.

5.2 GROUNDWATER PATHWAY

Section 5.2 discusses groundwater targets and conclusions drawn from analytical results from groundwater samples collected within the last 5 years. Sample results from previous investigative activities indicate that concentrations of the metals arsenic (total and dissolved), chromium, cobalt (total and dissolved), and lead, and the VOCs 1,1-DCA, 1,1-DCE, *cis*-1,2-DCE, TCE, and vinyl chloride exceeded EPA SCDM benchmarks in DPT temporary wells. TCE concentrations were detected as high as 94 and 540 µg/L in two groundwater samples collected in 2015 within the estimated landfill area. During the SI, groundwater samples were collected from 11 DPT temporary wells, mostly south to southeast of the site boundary and on the north edge of the site, to further delineate extent of groundwater contamination. PCE and TCE have not been detected in groundwater samples collected upgradient or downgradient of the site. PCE and TCE contamination in groundwater appears to have remained on site concentrated at the oil pit and estimated landfill area. This estimate is based on data acquired over the last 5 years, during PA and SI activities.

5.2.1 Groundwater Targets

The groundwater exposure pathway is evaluated in part by calculating the number of people served by water wells within 4 miles of the site, and determining whether these people are actually or potentially exposed to contamination associated with the site. According to the IDNR registered well database, 431 wells counted as private wells are within a 4-mile radius of the site (IDNR 2019). The Private Well Tracking System, Iowa Geological Survey Well, and Wells Registered for Testing databases were reviewed to determine the number of private wells (see Appendix B). The median population per household in Bettendorf, Iowa is 2.55 persons, which calculates to approximately 1,100 potential drinking water targets associated with private wells (U.S. Census Bureau 2010). However, this does not include private wells within 4 miles of the site not registered with the State. The source of municipal water in Bettendorf is the Mississippi River (American Water 2015). In six private wells sampled, only metals were detected. The metals found are not thought to be attributable to the sources at the site. A summary of registered drinking water wells (and other water wells) within 4 miles of the site is on Figure 12 in Appendix A.

5.2.2 Groundwater Pathway Conclusions

The groundwater pathway appears to pose a potential threat to public health as a result of a documented release of hazardous substances to groundwater at the site, including metals and PCE/TCE and their breakdown products. Considering the number of wells within a 4-mile radius of the site, drinking water targets impacted by the site could be numerous. All VOC detections in groundwater were found in temporary DPT wells installed on site in the suspected source areas and at one location adjacent to the northwest corner of the site boundary. No VOCs appear to have migrated off site to the east or hydraulically downgradient to the south. Several metals have been detected in groundwater off site, but given their prevalence, are likely naturally occurring. No drinking water well is within 0.25 mile of the site, and no site-related contamination of drinking water wells within 4 miles of the site is known or suspected.

5.3 SURFACE WATER PATHWAY

This section discusses surface water targets and pathway conclusions drawn from analytical results from surface water sampling at the site. During this SI, surface water samples were collected from a creek downgradient of contamination source areas (see Appendix A, Figure 8). Samples indicated several detections of metals. Surface water from this creek eventually discharges into the Mississippi River.

5.3.1 Surface Water Targets

Surface water exposure is evaluated in part by calculating the number of people served by surface water intakes downstream of the site, and determining whether these people are actually or potentially exposed to hazardous substances. The source of municipal water in Bettendorf is the Mississippi River. Intakes for drinking water are known to exist downriver from the site. Additional targets appear to be livestock and aquatic life inhabiting the areas around drainage runoff ditches and ponds downgradient of contamination source areas.

5.3.2 Surface Water Pathway Conclusions

Four surface water samples were collected from the creek running east along the southern boundary of the site. Several significant detections of metals occurred in surface water samples, but the concentrations were low enough that no EPA SCDM benchmarks were exceeded. The source of municipal water in Bettendorf is the Mississippi River, and intakes for drinking water are known to exist downriver from the site. However, it is highly unlikely that contamination at the site has impacted drinking water because contaminant concentrations in downgradient surface water and sediment samples were found to decrease to concentrations similar to those in the upgradient samples. Additionally, distances to the intakes and the large volume of water in the Mississippi River are significant. Therefore, the surface water pathway does not appear to pose a threat to public health.

5.4 SOIL EXPOSURE AND SUBSURFACE INTRUSION PATHWAY

This section discusses subsurface intrusion targets and pathway conclusions drawn from analytical results from soil gas and sub-slab/indoor air sampling at the site. As part of the SI, 13 soil gas, 20 sub-slab soil vapor, and 28 indoor air samples were collected (see Appendix A, Figures 5 and 10). Several VOCs were detected in indoor air samples, including PCE at nine properties at concentrations ranging from 0.34 to 24 $\mu\text{g}/\text{m}^3$. PCE concentrations exceeded the EPA SCDM CR benchmark of 10.8 $\mu\text{g}/\text{m}^3$ in indoor air samples at one residence. PCE was detected in sub-slab samples at eight properties during the SI (one commercial property and seven residences); concentration at one residential building directly south of the site exceeded the EPA residential sub-slab VISL. The owner of this residence (b) (6) indicated that passive radon systems had been installed at all properties in the Crowne Circle neighborhood.

Surface soil samples collected at the former landfill and oil pit contained elevated concentrations of hazardous constituents, notably pesticides and PCB Aroclor 1254. However, there are no residences within 200 feet of these sources and there is no indication that contamination has migrated off-site.

5.4.1 Subsurface Intrusion Targets

Approximately 50,457 people reside within a 4-mile radius of the site (U.S. Census Bureau 2010). Five elementary schools, one high school, and one child daycare are also within a 4-mile radius, none of which is within 0.25 mile of the site.

5.4.2 Subsurface Intrusion Conclusions

No properties off site are suspected to overlie groundwater contamination from the site. Soil-gas sample results from the SI support assertion of a subsurface source of contamination that appears to be limited to source areas on site. The source of VOC contamination in indoor air and sub-slab vapor samples off site is unknown and is not suspected to be site-related. Therefore, the subsurface intrusion pathway does not appear to pose a threat to public health.

5.5 AIR PATHWAY

This section discusses air targets and pathway conclusions drawn from analytical results from ambient air sampling at the site. As part of the SI, six ambient air samples were collected (see Appendix A, Figures 5 and 10). Sample results indicated detections of multiple VOCs. Ambient air sample results indicated that concentrations of the VOCs benzene, carbon tetrachloride, chloroform, and ethyl benzene exceeded EPA SCDM benchmarks. These detections are not believed to be related to the site. No ambient air samples contained PCE or TCE.

5.5.1 Air Pathway Targets

Approximately 50,457 people reside within a 4-mile radius of the site (U.S. Census Bureau 2010). The residences nearest to the site are approximately 160 feet south of the site boundary.

5.5.2 Air Pathway Conclusions

The air pathway of HRS addresses outdoor air only. Several VOCs were detected in ambient air samples collected outside in multiple residential areas. However, the source of these contaminants is unknown and is not suspected to be site-related. Therefore, the air pathway does not appear to pose a threat to public health.

6.0 EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 *Code of Federal Regulations* [CFR] 300.415(b) (2)] authorizes EPA to consider emergency response and removal actions at facilities that pose an imminent threat to human health or the environment. For the following reasons, a referral to EPA Region 7 for a removal action may be warranted based on the findings from this SI:

- Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;
- High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, and which may migrate;
- Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

Because this site was formerly used as an unregulated landfill, a variety of contaminants were reported in soil gas, groundwater and soil onsite, some at high concentrations. At this time, contaminants at levels of concern appear to be contained onsite. Although PCE and other chlorinated organic compounds were detected at high levels in DPT groundwater samples, these detections were limited to the source areas on site, and those contaminants do not appear to have migrated off-site. PCE and other chlorinated organic compounds were also reported in numerous indoor air samples. However, none of these concentrations exceeded EPA RMLs. TCE was not detected in any indoor air sample collected.

7.0 SUMMARY

The Tanglefoot Lane site is in Bettendorf, Iowa. It formerly hosted an unpermitted landfill from the 1950s-1970s, and presence of contaminated materials has been documented on site. The site was identified as a potential hazardous waste site and entered into CERCLIS/SEMS as Identification Number IAN0000703123. PCE and associated breakdown products have been detected in environmental samples collected at and near the site during past investigations. Main sources of contamination are at or near the landfill and oil pit areas of the site where disposal of various substances is known to have occurred. Contaminants are primarily metals and VOCs (including PCE and its degradation products) detected in soil and groundwater. VOCs have also been detected in soil-gas, sub-slab vapor, indoor air, and ambient air samples collected at or near the site.

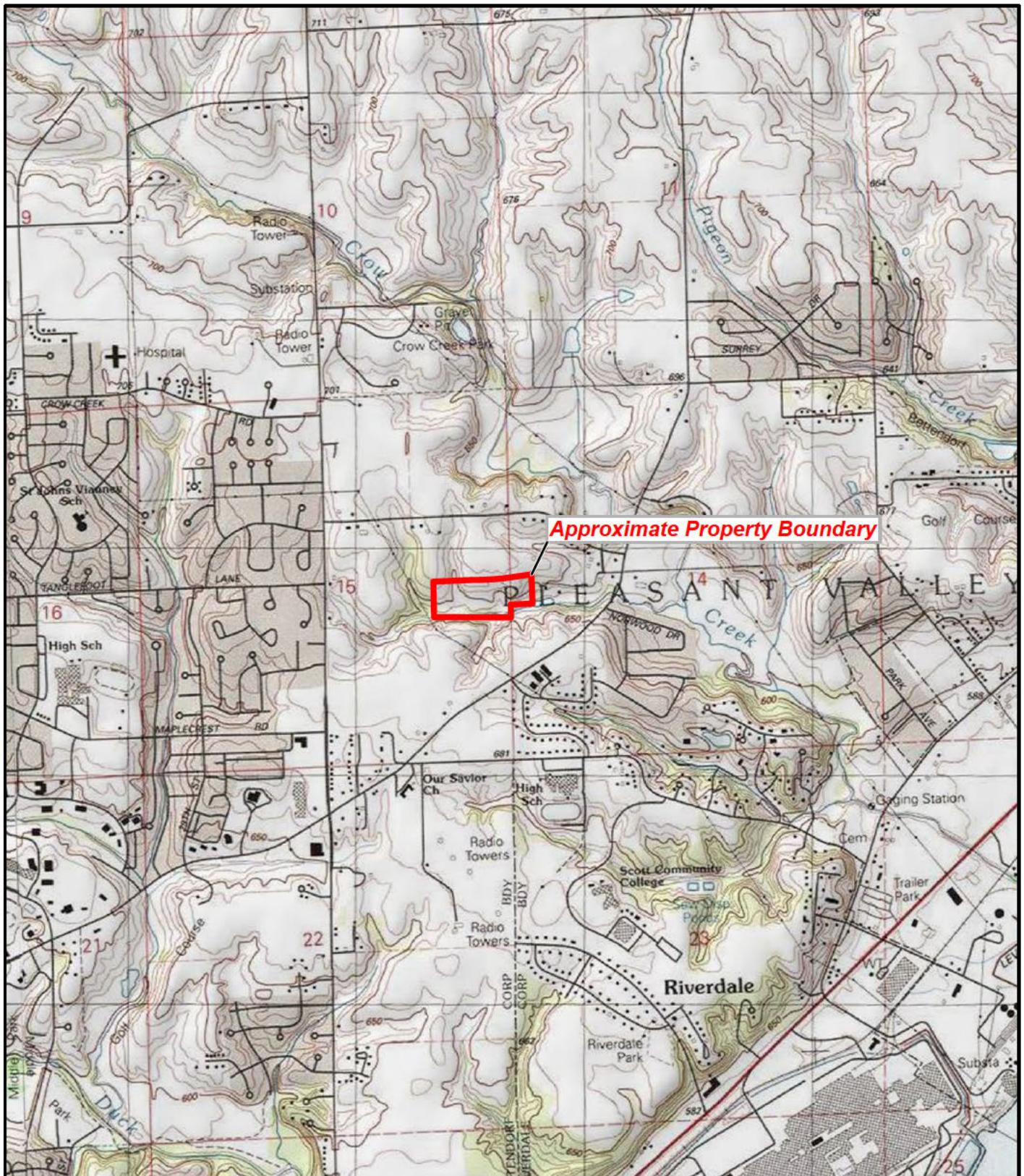
Groundwater contamination does not appear to have migrated off site. Several metals were detected at concentrations exceeding their EPA SCDM benchmarks in every groundwater sample including private wells, but presence of these metals is likely naturally occurring. No drinking water wells have been impacted by site-related contamination. VOC contamination in groundwater does not appear to have migrated off site; therefore, the source of VOC detections in indoor air and sub-slab vapor samples is unknown. Potential exposure via the subsurface intrusion pathway is unlikely. Soil and sediment pathways appear to pose a potential threat to the public health of those who reside or work on or near the site. The surface water and air pathways do not appear to pose a threat to public health.

8.0 REFERENCES

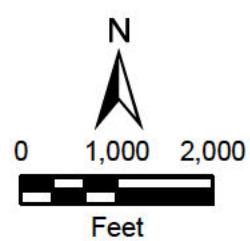
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<https://www.epa.gov/enviro/sems-search>
- EPA. 2020b. Superfund Chemical Data Matrix (SCDM) Query.
<https://www.epa.gov/superfund/superfund-chemical-data-matrix-scdm-query>
- EPA. 2020c. Vapor Intrusion Screening Level (VISL) Calculator.
https://epa-visl.ornl.gov/cgi-bin/visl_search#main-content

APPENDIX A

FIGURES



Source: USGS Silvis, IA 7.5 Minute Topo Quad, 1991
Scott County Iowa, GIS Map Service, 2015



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 1
Site Location Map



Date 12/6/2019

Drawn By Nick Wiederholt

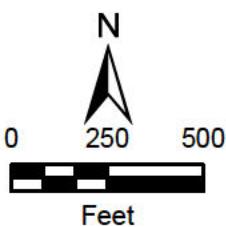
Project No X903019F0086.001



Legend

- Oil pit location
- Creek
- Approximate property boundary
- Estimated landfill area

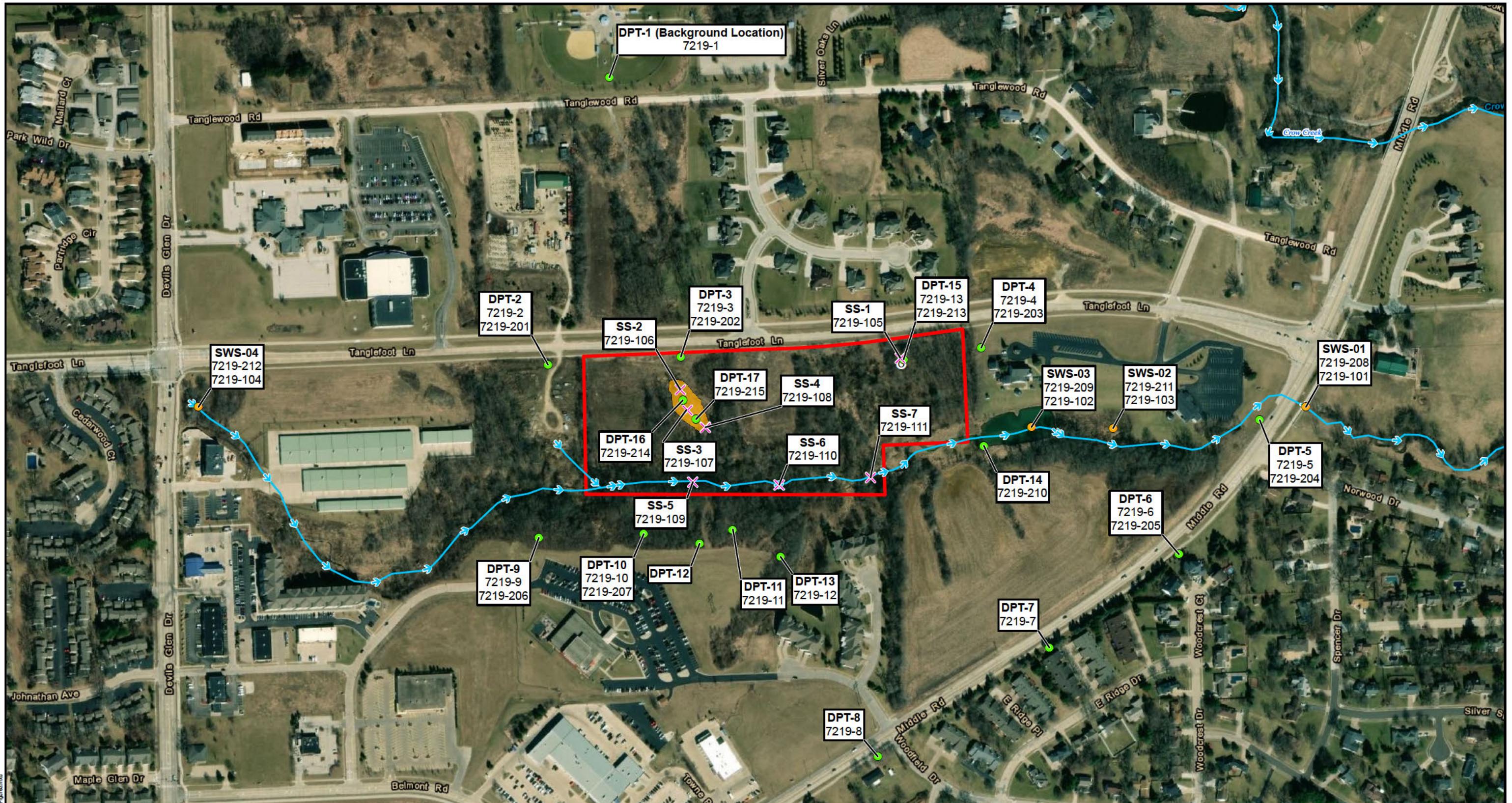
X:\Sedgwick\08001\Project\maps\Figures\Figure 2_Layout.mxd



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 2
Site Layout Map





Legend

- DPT groundwater / soil gas sample location
 - Surface soil sample location
 - Surface water and sediment sample location
 - Oil pit location
 - Creek

Approximate property boundary
Estimated landfill area
DPT Direct-push technology

Note:

- Samples were collected between October 4 and 7, 2016

A compass rose indicating North, a scale bar marked at 0, 175, and 350 feet.

Tanglefoot Lane Site Bettendorf, Iowa

Figure 3
2016 Sample Location Map





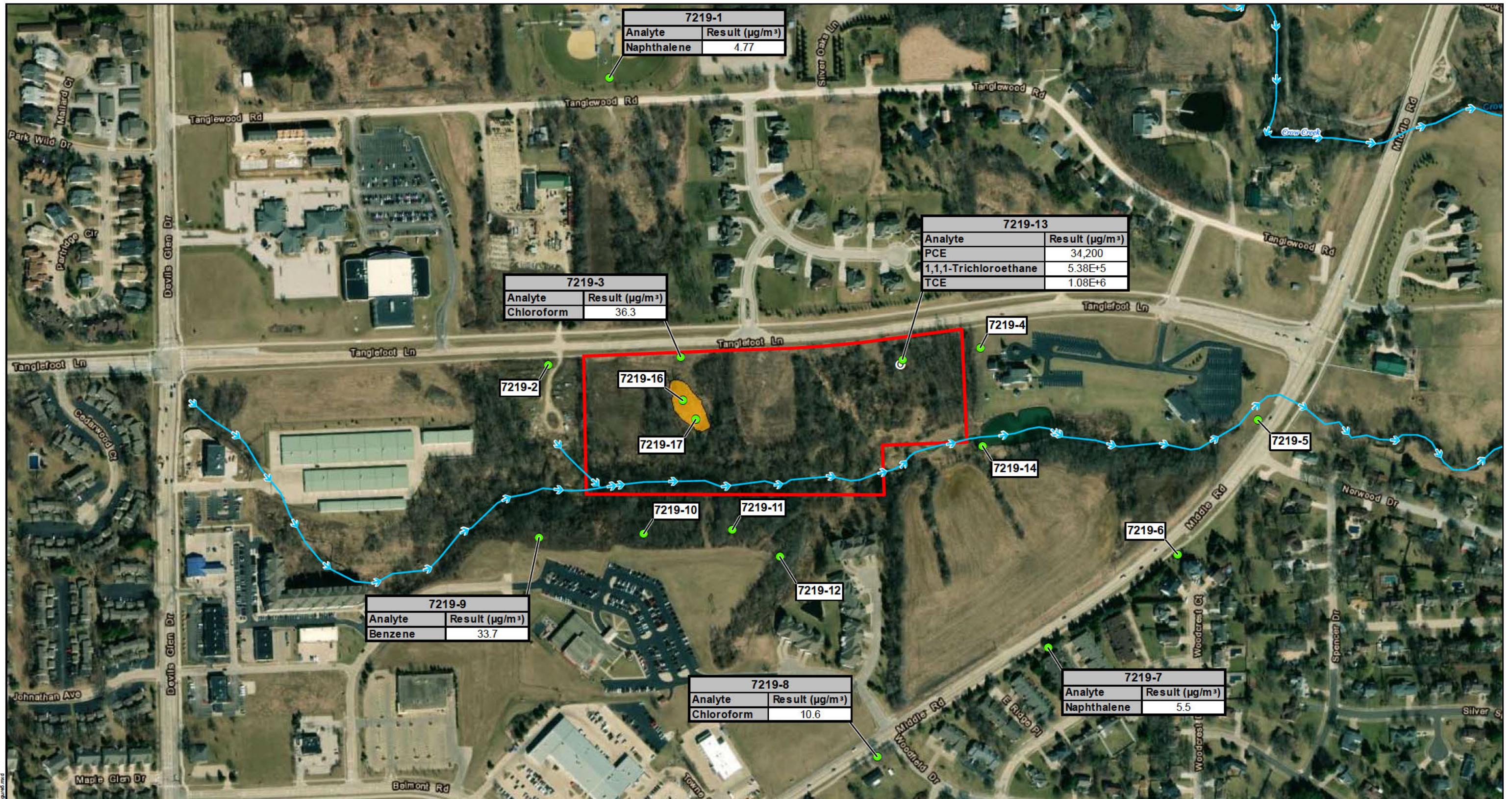
Tanglefoot Lane Site
Bettendorf, Iowa

Figure 4
2018 Sample Location Map



Note:

- Samples with an ID beginning with "7782" were collected in March 2018
- Samples with an ID beginning with "7917" were collected in August 2018



Legend

- DPT soil gas sample location
- Oil pit location
- Creek
- Approximate property boundary
- Estimated landfill area

DPT Direct-push technology

EPA U.S. Environmental Protection Agency

ft bgs Feet below ground surface

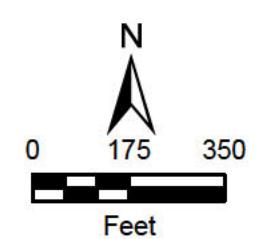
PCE Tetrachloroethene

TCE Trichloroethene

µg/m³ Micrograms per cubic meter

Notes:

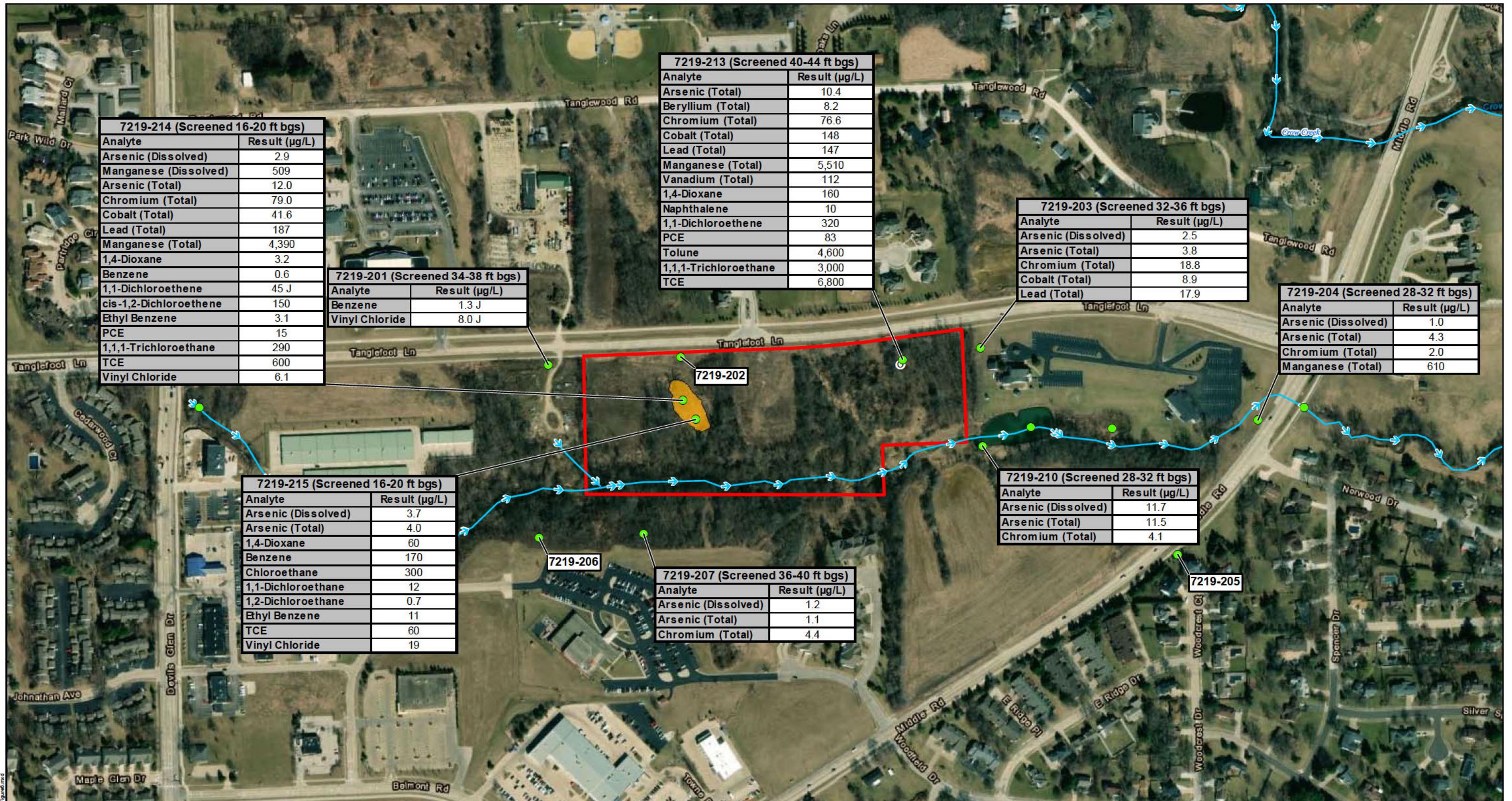
- All DPT soil gas samples were collected at 4-5 ft bgs
- Only results exceeding an EPA benchmark are shown



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 5
DPT Soil Gas Results Map





Legend

- DPT groundwater sample location
- Oil pit location
- Creek
- Approximate property boundary
- ◆ Estimated landfill area

DPT Direct-push technology
EPA U.S. Environmental Protection Agency
ft bgs Feet below ground surface
PCE Tetrachloroethene
TCE Trichloroethene

Source: Esri, ArcGIS Online, World Imagery Basemap, Digital Globe, 2018; Scott County Iowa, GIS Map Service, 2015

$\mu\text{g/L}$ Micrograms per liter

Notes:
- Only results exceeding an EPA benchmark are shown

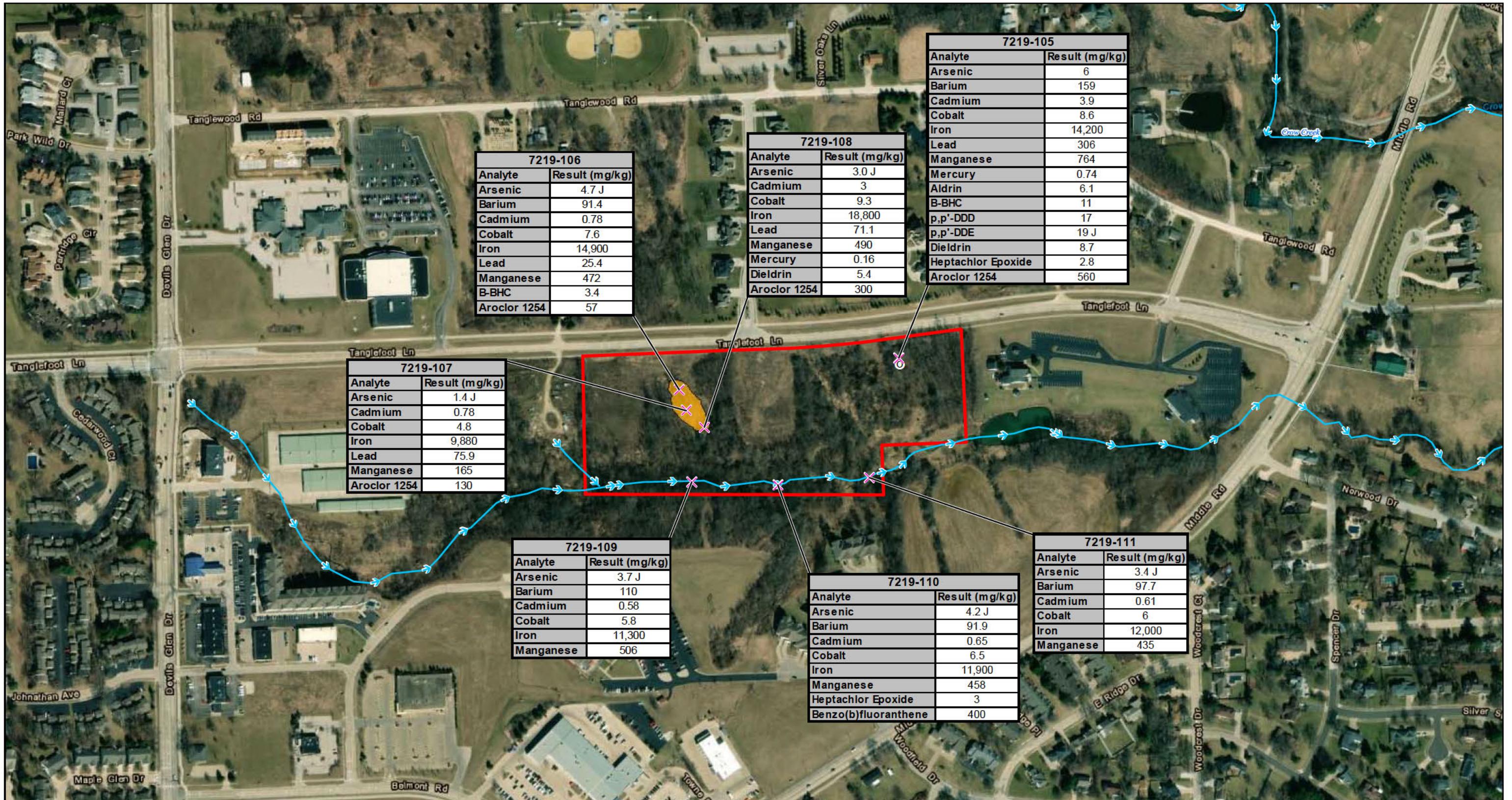
N
0 175 350
Feet

Tanglefoot Lane Site
Bettendorf, Iowa

Figure 6
DPT Groundwater Sample Results Map

TETRA TECH

Date 4/29/2020 Drawn By Nick Wiederholt Project No X903019F0086.001

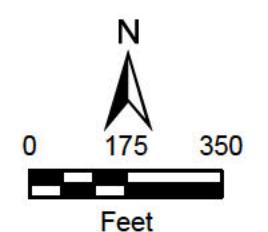


Legend
© Oil pit location
✖ Surface soil sample location
→ Creek
■ Approximate property boundary
● Estimated landfill area

DDD Dichlorodiphenyldichloroethane mg/kg Milligrams per kilogram
DDE Dichlorodiphenyldichloroethylene
EPA U.S. Environmental Protection Agency
ft bgs Feet below ground surface
J Estimated result

Source: Esri, ArcGIS Online, World Imagery Basemap, Digital Globe, 2018; Scott County Iowa, GIS Map Service, 2015

Notes:
- All surface soil samples were collected at 0-0.5 ft bgs
- Only results exceeding an EPA benchmark are shown

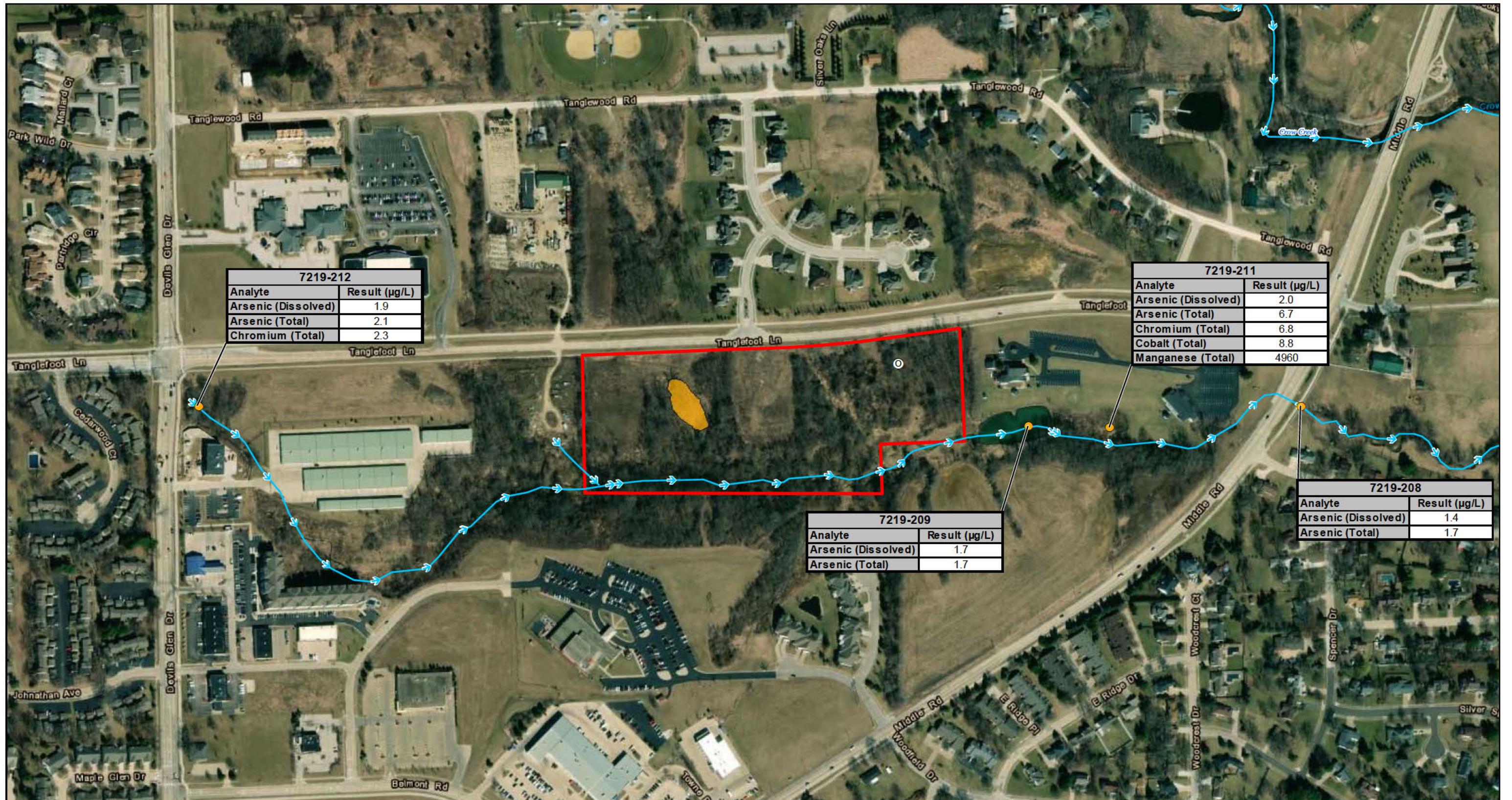


Tanglefoot Lane Site
Bettendorf, Iowa

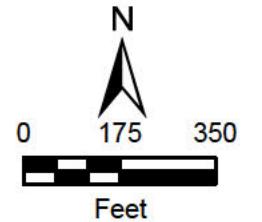
Figure 7
Surface Soil Sample Results Map

TETRA TECH

Date: 12/6/2019 Drawn By: Nick Wiederolt Project No: X903019P0065



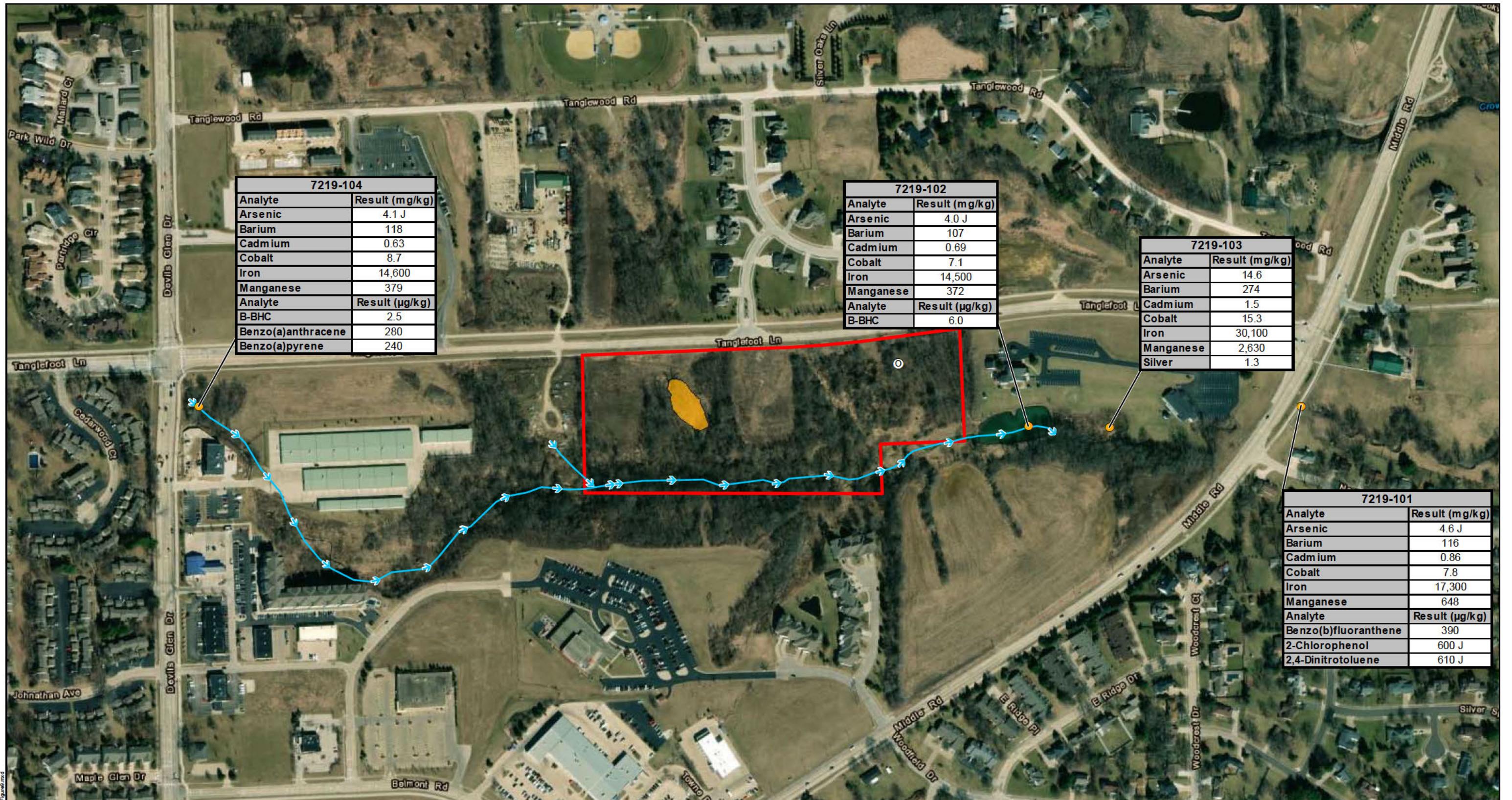
Notes:
- Only results exceeding an EPA benchmark are shown



Tanglefoot Lane Site
Bettendorf, Iowa

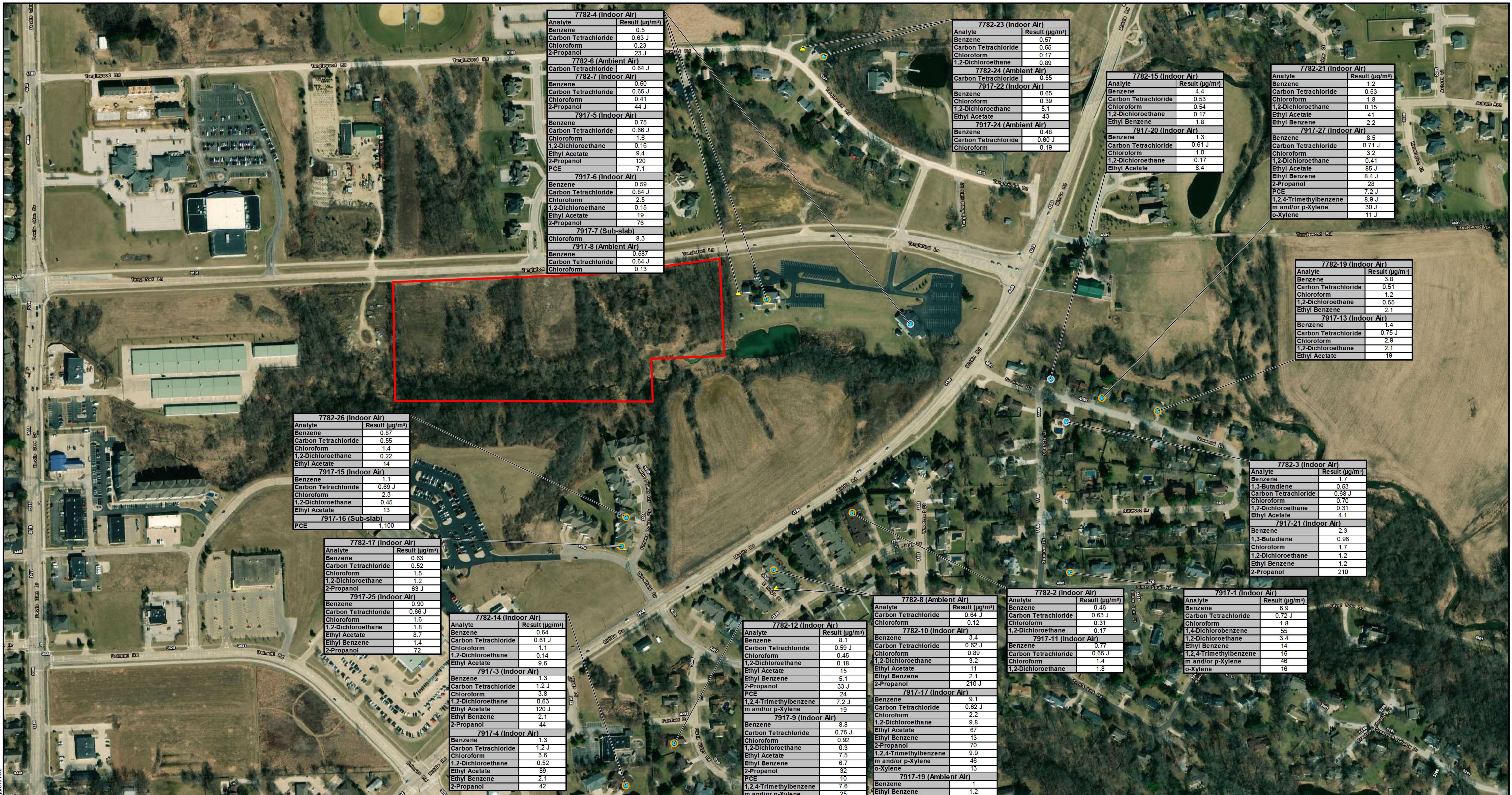
Figure 8
Surface Water Sample Results Map





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Legend		Tanglefoot Lane Site Bettendorf, Iowa			
○ Oil pit location	B-HC Hexachlorocyclohexane				
● Sediment sample location	EPA U.S. Environmental Protection Agency	N			
→ Creek	J Estimated result	0 175 350			
■ Approximate property boundary	mg/kg Milligrams per kilogram	Feet			
Estimated landfill area	µg/kg Micrograms per kilogram				
Source: Esri, ArcGIS Online, World Imagery Basemap, Digital Globe, 2018; Scott County Iowa, GIS Map Service, 2015					
Notes: - Only results exceeding an EPA benchmark are shown					
Figure 9 Sediment Sample Results Map					
TETRA TECH					
Date: 4/27/2020 Drawn By: Nick Wiedenhoff Project No: X93019F0066.001					



Legend

- ▲ Exterior ambient air sample location
- Indoor air sample location
- Indoor air/sub-slab soil gas sample location

EPA U.S. Environmental Protection Agency

J Estimated result

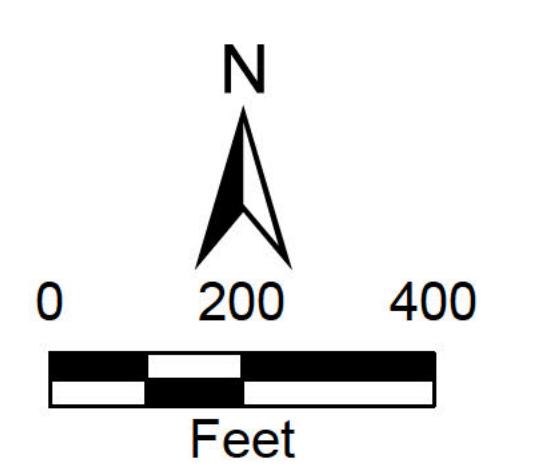
PCE Tetrachloroethene

$\mu\text{g}/\text{m}^3$ Micrograms per cubic meter

GIS Workspace\XG9030086001\Projects\md041620\Figure10.mxd
Source: Esri, ArcGIS Online, World Imagery Basemap, Digital Globe, 2018; Scott County Iowa, GIS Map Service, 2015

Notes:

- Only results exceeding an EPA benchmark are shown

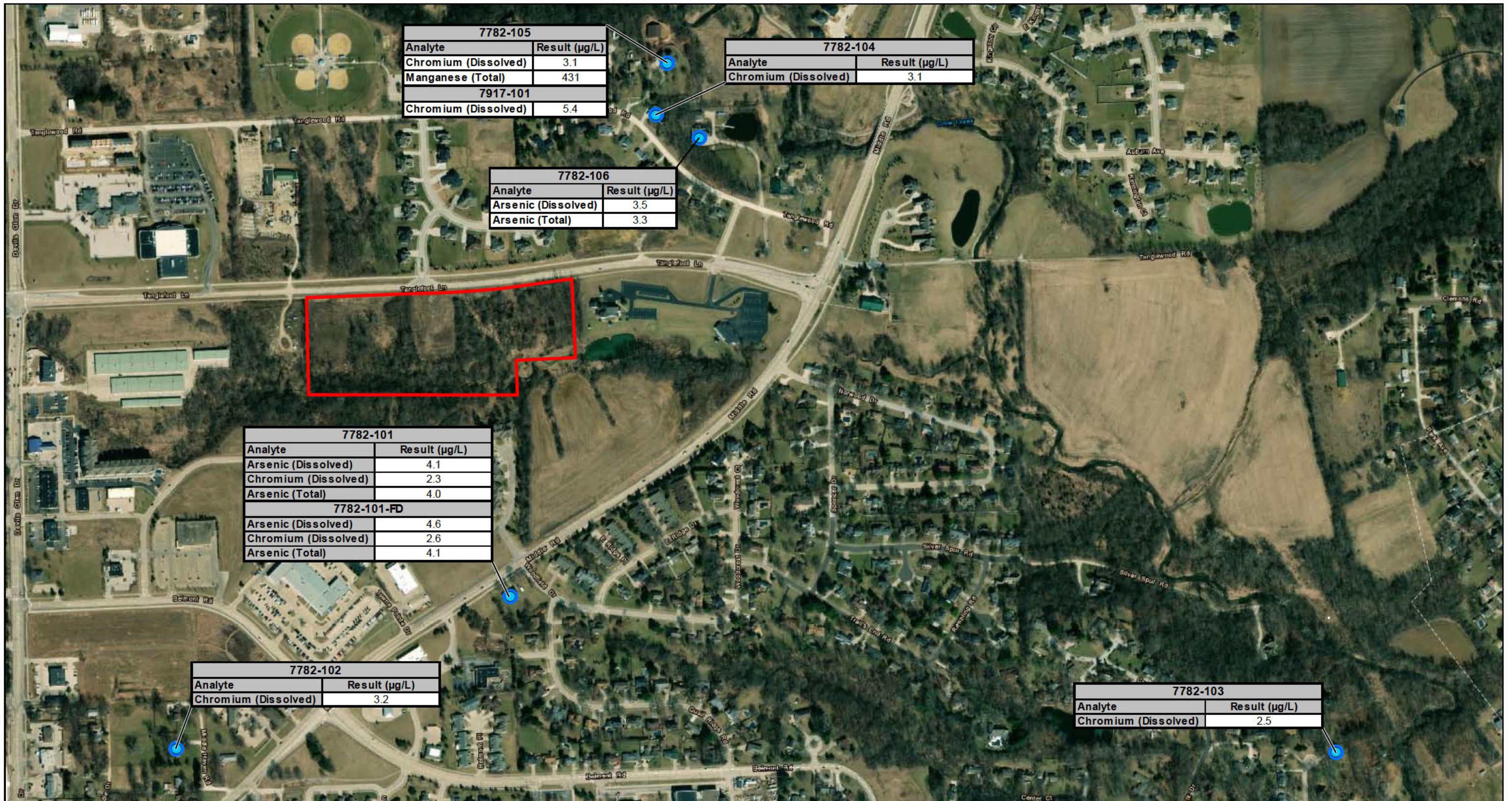


Tanglefoot Lane Site
Bettendorf, Iowa

Figure 10
Vapor Intrusion Sample Results Map



Date: 4/30/2020 Drawn By: Nick Wiederholt Project No: X003019F0086.001


Legend

● Private well sample location

$\mu\text{g/L}$ Micrograms per liter

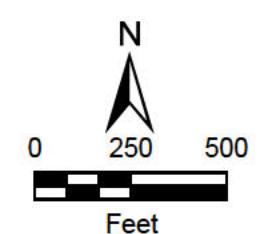
■ Approximate property boundary

EPA U.S. Environmental Protection Agency

FD Field duplicate

Notes:

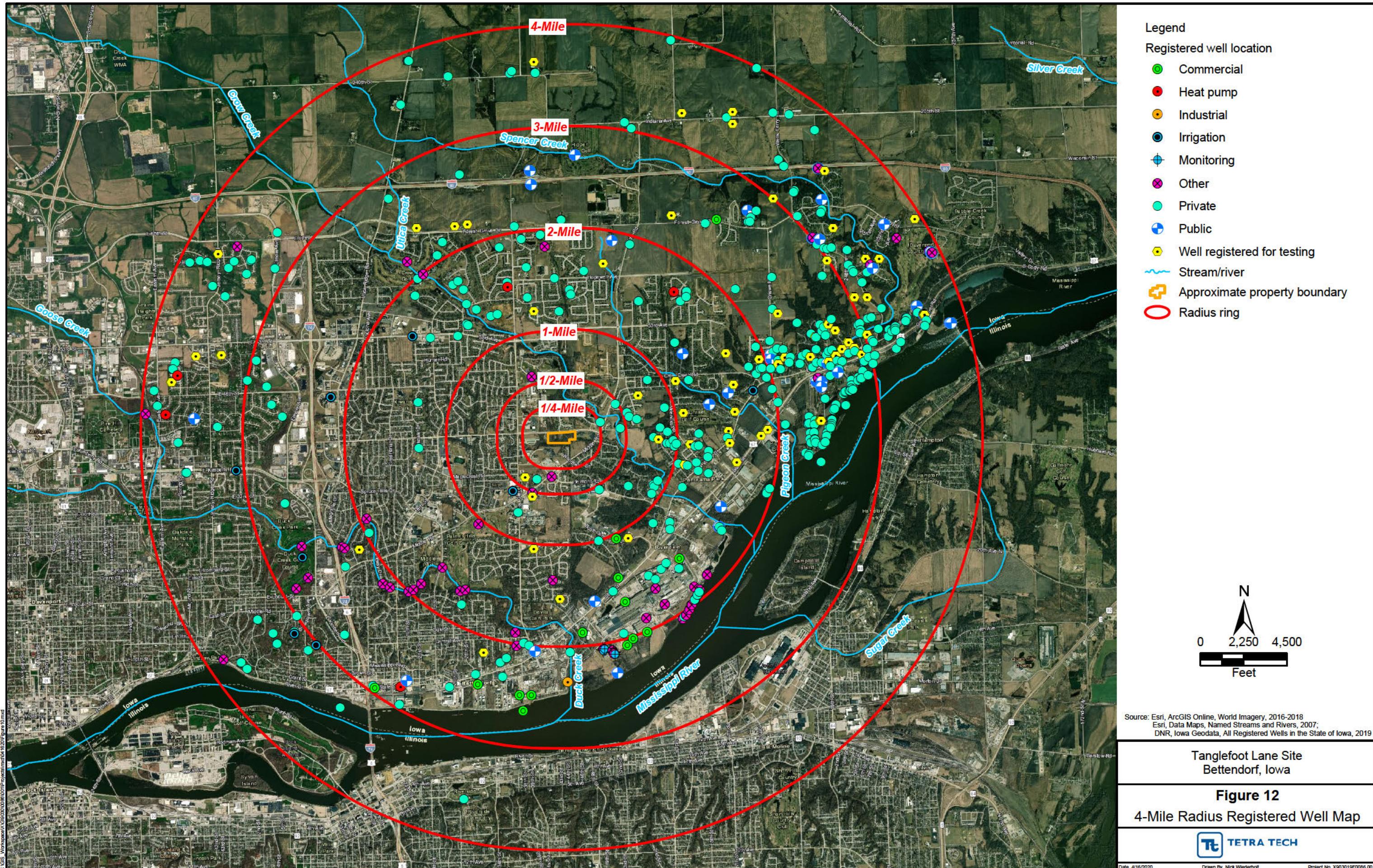
- Only results exceeding an EPA benchmark are shown



Tanglefoot Lane Site
Bettendorf, Iowa

Figure 11
Private Well Groundwater
Sample Results Map

TETRA TECH



APPENDIX B

PRIVATE WELLS WITHIN SITE VICINITY

APPENDIX B

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2155165	Private	(b) (9)	275	0.25 to 0.5
3128	Private	(b) (9)	95	0.25 to 0.5
2099114	Private	(b) (9)	300	0.25 to 0.5
2098617	Private	(b) (9)	300	0.25 to 0.5
22798	Test	(b) (9)	Unknown	0.25 to 0.5
2150841	Private	(b) (9)	Unknown	0.5 to 1
2168290	Private	(b) (9)	Unknown	0.5 to 1
2181565	Private	(b) (9)	125	0.5 to 1
18413	Private	(b) (9)	148	0.5 to 1
2083739	Private	(b) (9)	80	0.5 to 1
2076320	Private	(b) (9)	250	0.5 to 1
18959	Private	(b) (9)	235	0.5 to 1
2144628	Private	(b) (9)	243	0.5 to 1
2163182	Private	(b) (9)	255	0.5 to 1
2139359	Private	(b) (9)	150	0.5 to 1
2115367	Private	(b) (9)	150	0.5 to 1
2141440	Private	(b) (9)	Unknown	0.5 to 1
2144719	Private	(b) (9)	150	0.5 to 1
2195874	Private	(b) (9)	150	0.5 to 1
2169867	Private	(b) (9)	180	0.5 to 1
2133095	Private	(b) (9)	200	0.5 to 1
10148	Private	(b) (9)	250	0.5 to 1
2117214	Private	(b) (9)	250	0.5 to 1
2105530	Private	(b) (9)	150	0.5 to 1
2136684	Private	(b) (9)	Unknown	0.5 to 1
6667	Test	(b) (9)	Unknown	0.5 to 1
49611	Test	(b) (9)	Unknown	0.5 to 1
64685	Test	(b) (9)	175	0.5 to 1
64546	Test	(b) (9)	180	0.5 to 1
2187645	Private	(b) (9)	340	1 to 2
2163482	Private	(b) (9)	Unknown	1 to 2
2162351	Private	(b) (9)	239	1 to 2
2130478	Private	(b) (9)	Unknown	1 to 2
2131803	Private	(b) (9)	150	1 to 2
2105266	Private	(b) (9)	200	1 to 2
2142975	Private	(b) (9)	215	1 to 2
2116111	Private	(b) (9)	150	1 to 2
36682	Private	(b) (9)	322	1 to 2
2113892	Private	(b) (9)	150	1 to 2
2173530	Private	(b) (9)	40	1 to 2
17279	Private	(b) (9)	185	1 to 2
2176868	Private	(b) (9)	160	1 to 2
9522	Private	(b) (9)	189	1 to 2
2170832	Private	(b) (9)	210	1 to 2
2111894	Private	(b) (9)	175	1 to 2
2115978	Private	(b) (9)	200	1 to 2

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
60285	Private	(b) (9)	175	1 to 2
2165701	Private	(b) (9)	180	1 to 2
2099113	Private	(b) (9)	300	1 to 2
2133884	Private	(b) (9)	Unknown	1 to 2
2132938	Private	(b) (9)	Unknown	1 to 2
2132958	Private	(b) (9)	Unknown	1 to 2
2132949	Private	(b) (9)	Unknown	1 to 2
2128868	Private	(b) (9)	100	1 to 2
2189702	Private	(b) (9)	150	1 to 2
2144606	Private	(b) (9)	270	1 to 2
2115371	Private	(b) (9)	88	1 to 2
2173790	Private	(b) (9)	200	1 to 2
2141478	Private	(b) (9)	150	1 to 2
2145243	Private	(b) (9)	150	1 to 2
2116120	Private	(b) (9)	75	1 to 2
2141147	Private	(b) (9)	Unknown	1 to 2
2164164	Private	(b) (9)	180	1 to 2
60959	Private	(b) (9)	175	1 to 2
2112038	Private	(b) (9)	80	1 to 2
2122942	Private	(b) (9)	143	1 to 2
2091215	Private	(b) (9)	340	1 to 2
2146159	Private	(b) (9)	105	1 to 2
50108	Private	(b) (9)	195	1 to 2
2114579	Private	(b) (9)	150	1 to 2
2104189	Private	(b) (9)	150	1 to 2
2195865	Private	(b) (9)	150	1 to 2
2176173	Private	(b) (9)	160	1 to 2
2119098	Private	(b) (9)	200	1 to 2
2127826	Private	(b) (9)	Unknown	1 to 2
2106399	Private	(b) (9)	70	1 to 2
2126611	Private	(b) (9)	242	1 to 2
2123252	Private	(b) (9)	113	1 to 2
11362	Private	(b) (9)	95	1 to 2
2156162	Private	(b) (9)	Unknown	1 to 2
79709	Private	(b) (9),	300	1 to 2
10871	Private	(b) (9)	200	1 to 2
16175	Private	(b) (9)	175	1 to 2
2171417	Private	(b) (9)	276	1 to 2
2097990	Private	(b) (9)	200	1 to 2
2140183	Private	(b) (9)	150	1 to 2
2156809	Private	(b) (9)	Unknown	1 to 2
2140789	Private	(b) (9)	Unknown	1 to 2
2179635	Private	(b) (9)	40	1 to 2
2180381	Private	(b) (9)	255	1 to 2
2177368	Private	(b) (9)	175	1 to 2
2146560	Private	(b) (9)	150	1 to 2

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
50422	Private	(b) (9)	255	1 to 2
2137527	Private	(b) (9)	Unknown	1 to 2
2152980	Private	(b) (9)	202	1 to 2
2083894	Private	(b) (9)	180	1 to 2
59244	Private	(b) (9)	295	1 to 2
2152975	Private	(b) (9)	315	1 to 2
84147	Test	(b) (9)	Unknown	1 to 2
19021	Test	(b) (9)	270	1 to 2
79104	Test	(b) (9)	175	1 to 2
84186	Test	(b) (9)	Unknown	1 to 2
38224	Test	(b) (9)	175	1 to 2
2785	Test	(b) (9)	100	1 to 2
64629	Test	(b) (9)	Unknown	1 to 2
22770	Test	(b) (9)	Unknown	1 to 2
55708	Test	(b) (9)	Unknown	1 to 2
2801	Test	(b) (9)	100	1 to 2
84168	Test	(b) (9)	Unknown	1 to 2
1917	Test	(b) (9)	80	1 to 2
64545	Test	(b) (9)	47	1 to 2
10081	Test	(b) (9)	198	1 to 2
65031	Test	(b) (9)	Unknown	1 to 2
64885	Test	(b) (9)	250	1 to 2
6676	Test	(b) (9)	200	1 to 2
84105	Test	(b) (9)	Unknown	1 to 2
65029	Test	(b) (9)	308	1 to 2
64671	Test	(b) (9)	105	1 to 2
2802	Test	(b) (9)	200	1 to 2
74127	Test	(b) (9)	Unknown	1 to 2
59498	Private	(b) (9)	235	2 to 3
2153910	Private	(b) (9)	Unknown	2 to 3
2093154	Private	(b) (9)	100	2 to 3
2083737	Private	(b) (9)	180	2 to 3
2139165	Private	(b) (9)	Unknown	2 to 3
27842	Private	(b) (9)	Unknown	2 to 3
2134639	Private	(b) (9)	150	2 to 3
2115550	Private	(b) (9)	150	2 to 3
2180400	Private	(b) (9)	142	2 to 3
2186170	Private	(b) (9)	215	2 to 3
16249	Private	(b) (9)	193	2 to 3
2075803	Private	(b) (9)	50	2 to 3
2154749	Private	(b) (9)	150	2 to 3
2134707	Private	(b) (9)	130	2 to 3
2114560	Private	(b) (9)	150	2 to 3
2075804	Private	(b) (9)	50	2 to 3
2075401	Private	(b) (9)	180	2 to 3
2155200	Private	(b) (9)	150	2 to 3

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2154702	Private	(b) (9)	175	2 to 3
2108715	Private	(b) (9)	Unknown	2 to 3
2106042	Private	(b) (9)	152	2 to 3
2149842	Private	Unknown	150	2 to 3
17705	Private	(b) (9)	140	2 to 3
2134149	Private	(b) (9)	Unknown	2 to 3
2116824	Private	(b) (9)	150	2 to 3
2180362	Private	(b) (9)	295	2 to 3
52530	Private	(b) (9)	195	2 to 3
2134700	Private	(b) (9)	100	2 to 3
48254	Private	(b) (9)	155	2 to 3
2137644	Private	(b) (9)	150	2 to 3
2150779	Private	(b) (9)	Unknown	2 to 3
27827	Private	(b) (9)	Unknown	2 to 3
2152116	Private	(b) (9)	235	2 to 3
3358	Private	(b) (9)	90	2 to 3
73030	Private	(b) (9)	330	2 to 3
2136786	Private	(b) (9)	150	2 to 3
2180844	Private	(b) (9)	210	2 to 3
2201747	Private	(b) (9)	250	2 to 3
2083181	Private	(b) (9)	195	2 to 3
2154596	Private	(b) (9)	150	2 to 3
12111	Private	(b) (9)	195	2 to 3
2172938	Private	(b) (9)	275	2 to 3
2161544	Private	(b) (9)	Unknown	2 to 3
2083364	Private	(b) (9)	150	2 to 3
2095130	Private	(b) (9)	100	2 to 3
2089987	Private	(b) (9)	200	2 to 3
11502	Private	(b) (9)	125	2 to 3
2176621	Private	(b) (9)	150	2 to 3
2129414	Private	(b) (9)	200	2 to 3
9598	Private	(b) (9)	225	2 to 3
17277	Private	(b) (9)	140	2 to 3
2185431	Private	(b) (9)	170	2 to 3
17664	Private	(b) (9)	282	2 to 3
2145244	Private	(b) (9)	150	2 to 3
2184960	Private	(b) (9)	125	2 to 3
2134730	Private	(b) (9)	100	2 to 3
2166653	Private	(b) (9)	229	2 to 3
2153731	Private	(b) (9)	150	2 to 3
2096274	Private	(b) (9)	150	2 to 3
2169292	Private	(b) (9)	150	2 to 3
2175941	Private	(b) (9)	175	2 to 3
2138583	Private	(b) (9)	150	2 to 3
2136465	Private	(b) (9)	150	2 to 3
2143371	Private	(b) (9)	150	2 to 3

APPENDIX B (Continued)**PRIVATE WELLS WITHIN SITE VICINITY**

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2152053	Private	(b) (9)	195	2 to 3
2187220	Private	(b) (9)	150	2 to 3
2118887	Private	(b) (9)	150	2 to 3
2115092	Private	(b) (9)	150	2 to 3
11131	Private	(b) (9)	252	2 to 3
2134663	Private	(b) (9)	100	2 to 3
2136413	Private	(b) (9)	150	2 to 3
2180399	Private	(b) (9)	255	2 to 3
2138988	Private	(b) (9)	200	2 to 3
48042	Private	(b) (9)	195	2 to 3
2123595	Private	(b) (9)	150	2 to 3
2204489	Private	(b) (9)	Unknown	2 to 3
2121723	Private	(b) (9)	100	2 to 3
2172716	Private	(b) (9)	114	2 to 3
2130579	Private	(b) (9)	150	2 to 3
2181538	Private	(b) (9)	122	2 to 3
2173237	Private	(b) (9)	217	2 to 3
2185436	Private	(b) (9)	206	2 to 3
2189299	Private	(b) (9)	150	2 to 3
2176769	Private	(b) (9)	150	2 to 3
2107054	Private	(b) (9)	80	2 to 3
2136302	Private	(b) (9)	150	2 to 3
2109079	Private	(b) (9)	200	2 to 3
2182417	Private	(b) (9)	100	2 to 3
2150219	Private	(b) (9)	235	2 to 3
72876	Private	(b) (9)	235	2 to 3
2152185	Private	(b) (9)	195	2 to 3
2201981	Private	(b) (9)	150	2 to 3
2123596	Private	(b) (9)	150	2 to 3
2136319	Private	(b) (9)	150	2 to 3
2133694	Private	(b) (9)	Unknown	2 to 3
2136708	Private	(b) (9)	150	2 to 3
2138728	Private	(b) (9)	229	2 to 3
2135800	Private	(b) (9)	150	2 to 3
2089378	Private	(b) (9)	250	2 to 3
2111952	Private	(b) (9)	175	2 to 3
2156388	Private	(b) (9)	175	2 to 3
2172018	Private	(b) (9)	Unknown	2 to 3
2130532	Private	(b) (9)	150	2 to 3
2192371	Private	(b) (9)	200	2 to 3
2092244	Private	(b) (9)	150	2 to 3
2075808	Private	(b) (9)	68	2 to 3
2134722	Private	(b) (9)	100	2 to 3
2107112	Private	(b) (9)	200	2 to 3
2166978	Private	(b) (9)	180	2 to 3
15090	Private	(b) (9)	245	2 to 3

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2154007	Private	(b) (9)	150	2 to 3
12428	Private		232	2 to 3
2160481	Private		Unknown	2 to 3
2122514	Private		100	2 to 3
2155318	Private		150	2 to 3
2160949	Private		282	2 to 3
2199132	Private		120	2 to 3
2092966	Private		100	2 to 3
2115903	Private		200	2 to 3
2115902	Private		200	2 to 3
2083563	Private		150	2 to 3
2142968	Private		262	2 to 3
73029	Private		250	2 to 3
2177062	Private		150	2 to 3
2075806	Private		200	2 to 3
2199957	Private		130	2 to 3
2136782	Private		150	2 to 3
2179797	Private		100	2 to 3
2177417	Private		210	2 to 3
2134726	Private		100	2 to 3
2077857	Private		200	2 to 3
2153959	Private		150	2 to 3
2075461	Private		60	2 to 3
2115093	Private		160	2 to 3
2083731	Private		60	2 to 3
2186310	Private		201	2 to 3
2136241	Private		150	2 to 3
2149530	Private		150	2 to 3
2136466	Private		150	2 to 3
33966	Test		60	2 to 3
76248	Test		Unknown	2 to 3
84079	Test		Unknown	2 to 3
33908	Test		Unknown	2 to 3
33958	Test		Unknown	2 to 3
49411	Test		Unknown	2 to 3
49413	Test		Unknown	2 to 3
33916	Test		Unknown	2 to 3
65035	Test		Unknown	2 to 3
84174	Test		Unknown	2 to 3
26714	Test		160	2 to 3
2788	Test		200	2 to 3
84092	Test		Unknown	2 to 3
84207	Test		Unknown	2 to 3
84396	Test		Unknown	2 to 3
34014	Test		80	2 to 3
33910	Test		Unknown	2 to 3

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
84117	Test	(b) (9)	Unknown	2 to 3
22560	Test		200	2 to 3
2790	Test		200	2 to 3
84065	Test		Unknown	2 to 3
84221	Test		Unknown	2 to 3
33959	Test		110	2 to 3
33968	Test		133	2 to 3
64837	Test		103	2 to 3
64878	Test		Unknown	2 to 3
84223	Test		Unknown	2 to 3
76245	Test		Unknown	2 to 3
84205	Test		Unknown	2 to 3
6668	Test		90	2 to 3
33915	Test		Unknown	2 to 3
84209	Test		Unknown	2 to 3
11911	Test		100	2 to 3
49410	Test		Unknown	2 to 3
84111	Test		Unknown	2 to 3
84204	Test		Unknown	2 to 3
84391	Test		Unknown	2 to 3
54152	Test		45	2 to 3
34038	Test		Unknown	2 to 3
49415	Test		Unknown	2 to 3
84066	Test		60	2 to 3
84139	Test		Unknown	2 to 3
19020	Test		160	2 to 3
33911	Test		Unknown	2 to 3
81289	Test		180	2 to 3
84170	Test		Unknown	2 to 3
11912	Test		120	2 to 3
2198586	Private		280	3 to 4
2172504	Private		357	3 to 4
17665	Private		258	3 to 4
2180363	Private		255	3 to 4
2096029	Private		242	3 to 4
2159283	Private		390	3 to 4
28788	Private		Unknown	3 to 4
2083567	Private		150	3 to 4
79708	Private		250	3 to 4
2134146	Private		Unknown	3 to 4
2194878	Private		315	3 to 4
2117604	Private		90	3 to 4
2139849	Private		282	3 to 4
2167716	Private		255	3 to 4
2083331	Private		200	3 to 4
2095870	Private		255	3 to 4

APPENDIX B (Continued)**PRIVATE WELLS WITHIN SITE VICINITY**

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2855	Private	(b) (9)	110	3 to 4
16211	Private	(b) (9)	280	3 to 4
15196	Private	(b) (9)	180	3 to 4
2156803	Private	(b) (9)	Unknown	3 to 4
12399	Private	(b) (9)	290	3 to 4
2131351	Private	(b) (9)	Unknown	3 to 4
2126751	Private	(b) (9)	200	3 to 4
2076522	Private	(b) (9)	127	3 to 4
2075908	Private	(b) (9)	127	3 to 4
2144616	Private	(b) (9)	300	3 to 4
2159576	Private	(b) (9)	180	3 to 4
2163802	Private	(b) (9)	240	3 to 4
3207	Private	(b) (9)	145	3 to 4
37955	Private	(b) (9)	141	3 to 4
2199799	Private	(b) (9)	290	3 to 4
2195484	Private	(b) (9)	255	3 to 4
2126322	Private	(b) (9)	195	3 to 4
2175436	Private	(b) (9)	200	3 to 4
2144635	Private	(b) (9)	Unknown	3 to 4
17694	Private	(b) (9)	247	3 to 4
8446	Private	(b) (9)	189	3 to 4
2075397	Private	(b) (9)	200	3 to 4
2106406	Private	(b) (9)	300	3 to 4
2168997	Private	(b) (9)	215	3 to 4
2118293	Private	(b) (9)	75	3 to 4
2162270	Private	(b) (9)	200	3 to 4
2162271	Private	(b) (9)	180	3 to 4
2174773	Private	(b) (9)	200	3 to 4
49973	Private	(b) (9)	255	3 to 4
2177646	Private	(b) (9)	215	3 to 4
2163145	Private	(b) (9)	395	3 to 4
2114162	Private	(b) (9)	68	3 to 4
6652	Private	(b) (9)	73	3 to 4
2147301	Private	(b) (9)	295	3 to 4
2090716	Private	(b) (9)	200	3 to 4
11531	Private	(b) (9)	195	3 to 4
2118026	Private	(b) (9)	180	3 to 4
2075904	Private	(b) (9)	222	3 to 4
2115261	Private	(b) (9)	200	3 to 4
2127969	Private	(b) (9)	Unknown	3 to 4
2136683	Private	(b) (9)	Unknown	3 to 4
2127973	Private	(b) (9)	Unknown	3 to 4
2159051	Private	(b) (9)	150	3 to 4
2180370	Private	(b) (9)	262	3 to 4
3266	Private	(b) (9)	145	3 to 4
2170616	Private	(b) (9)	Unknown	3 to 4

APPENDIX B (Continued)

PRIVATE WELLS WITHIN SITE VICINITY

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
2100054	Private	(b) (9)	150	3 to 4
2180201	Private	(b) (9)	175	3 to 4
2153258	Private	(b) (9)	302	3 to 4
2174775	Private	(b) (9)	200	3 to 4
17131	Private	(b) (9)	147	3 to 4
2162119	Private	(b) (9)	200	3 to 4
2172354	Private	(b) (9)	302	3 to 4
2092547	Private	(b) (9)	280	3 to 4
2180383	Private	(b) (9)	355	3 to 4
2164291	Private	(b) (9)	276	3 to 4
2089986	Private	(b) (9)	300	3 to 4
2150318	Private	(b) (9)	160	3 to 4
1351	Private	(b) (9)	300	3 to 4
16164	Private	(b) (9)	300	3 to 4
42378	Private	(b) (9)	357	3 to 4
2126618	Private	(b) (9)	Unknown	3 to 4
2180418	Private	(b) (9)	355	3 to 4
54751	Private	(b) (9)	355	3 to 4
2169228	Private	(b) (9)	275	3 to 4
2117009	Private	(b) (9)	200	3 to 4
2133998	Private	(b) (9)	200	3 to 4
2172689	Private	(b) (9)	322	3 to 4
2175161	Private	(b) (9)	282	3 to 4
2152798	Private	(b) (9)	Unknown	3 to 4
74010	Test	(b) (9)	Unknown	3 to 4
74139	Test	(b) (9)	Unknown	3 to 4
26766	Test	(b) (9)	199	3 to 4
76231	Test	(b) (9)	Unknown	3 to 4
26698	Test	(b) (9)	270	3 to 4
60136	Test	(b) (9)	Unknown	3 to 4
33906	Test	(b) (9)	Unknown	3 to 4
37808	Test	(b) (9)	261	3 to 4
84199	Test	(b) (9)	Unknown	3 to 4
64626	Test	(b) (9)	Unknown	3 to 4
26746	Test	(b) (9)	Unknown	3 to 4
60135	Test	(b) (9)	Unknown	3 to 4
79109	Test	(b) (9)	180	3 to 4
76233	Test	(b) (9)	Unknown	3 to 4
53851	Test	(b) (9)	180	3 to 4
79115	Test	(b) (9)	150	3 to 4
34027	Test	(b) (9)	200	3 to 4
74138	Test	(b) (9)	Unknown	3 to 4
11917	Test	(b) (9)	140	3 to 4
428	Test	(b) (9)	140	3 to 4
84125	Test	(b) (9)	Unknown	3 to 4
64640	Test	(b) (9)	150	3 to 4

APPENDIX B (Continued)**PRIVATE WELLS WITHIN SITE VICINITY**

Well Number	Well Type	Location	Well Depth (feet bgs)	Approximate Distance from Site (miles)
65021	Test	(b) (9)	Unknown	3 to 4
34000	Test	(b) (9)	Unknown	3 to 4
84071	Test	(b) (9)	Unknown	3 to 4
22800	Test	(b) (9)	200	3 to 4
34040	Test	(b) (9)	Unknown	3 to 4
33989	Test	(b) (9)	100	3 to 4
84393	Test	(b) (9)	100	3 to 4
76228	Test	(b) (9)	Unknown	3 to 4
84181	Test	(b) (9)	Unknown	3 to 4
84064	Test	(b) (9)	200	3 to 4
76246	Test	(b) (9)	Unknown	3 to 4
37785	Test	(b) (9)	Unknown	3 to 4
84057	Test	(b) (9)	Unknown	3 to 4
424	Test	(b) (9)	280	3 to 4
33922	Test	(b) (9)	Unknown	3 to 4
33998	Test	(b) (9)	Unknown	3 to 4
84387	Test	(b) (9)	100	3 to 4

Notes:

bgs Below ground surface

APPENDIX C
PHOTOGRAPHIC LOG

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows direct-push technology (DPT) sampling activities at DPT-1 at the Tanglefoot Lane site.	1
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/4/2016



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-2 sampling activities at the Tanglefoot Lane site.	2
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/4/2016

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-3 sampling activities at the Tanglefoot Lane site.	3
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/5/2016

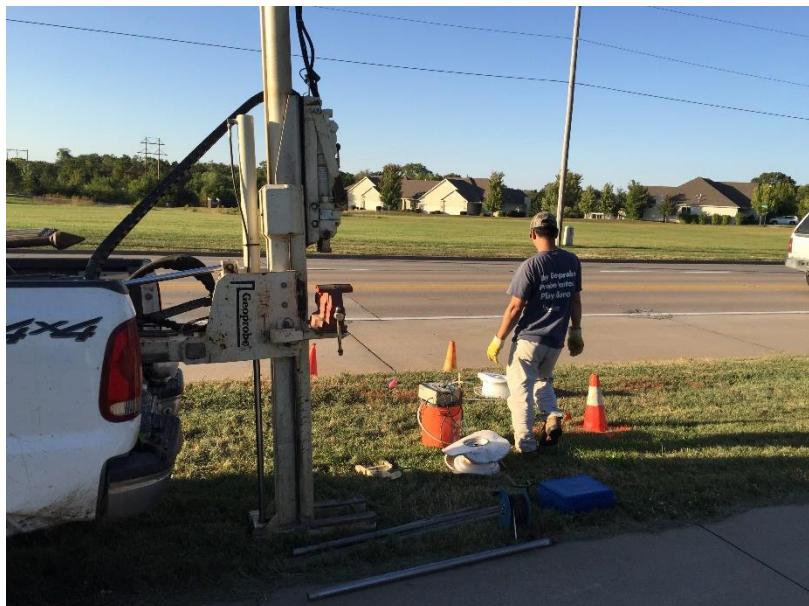


TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-4 soil gas sampling activities at the Tanglefoot Lane site.	4
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/5/2016

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-4 groundwater sampling activities at the Tanglefoot Lane site.	5
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/5/2016



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-8 sampling activities at the Tanglefoot Lane site.	6
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/5/2016

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows borehole plugging of DPT-9 at the Tanglefoot Lane site.	7
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/6/2016



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-12 sampling activities at the Tanglefoot Lane site.	8
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/6/2016

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows DPT-16 sampling activities at the Tanglefoot Lane site.	9
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/7/2016



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows Geoprobe decontamination activities at the Tanglefoot Lane site.	10
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/7/2016

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows surface soil sampling activities at the Tanglefoot Lane site.	11
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	10/7/2016



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows port installation for sub-slab vapor sampling at the Tanglefoot Lane site.	12
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	3/18/2018

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows a sub-slab vapor sampling location at the Tanglefoot Lane site.	13
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	3/21/2018



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows an indoor air sample collected in a residence at the Tanglefoot Lane site.	14
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	3/21/2018

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows an ambient air sampling location outside of a residence at the Tanglefoot Lane site.	15
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	3/22/2018



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows sub-slab vapor sample collection from a port in a residence at the Tanglefoot Lane site.	16
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	8/21/2018

**Tanglefoot Lane Site
Bettendorf, Iowa**



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows an ambient air sampling location outside of a residence at the Tanglefoot Lane site.	17
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	8/21/2018



TETRA TECH PROJECT NO. X9030.0086.001	PHOTO DESCRIPTION	This photograph shows an indoor air sample collected from a residence at the Tanglefoot Lane site.	18
	CLIENT	U. S. Environmental Protection Agency Region 7	Date
	PHOTOGRAPHER	[REDACTED]	8/21/2018

APPENDIX D
LOGBOOK

K S1576

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CONTENTS

PAGE	REFERENCE	DATE
	SIRA LOG BOOK # 1 TANGLEFOOT LANE SITE BETTENDORF, IOWA	

START PM: [REDACTED]

TETRATECH INC.
415 OAK ST. KC, MO
64106 816-412-1784

EPA PM: TOPP DAVIS
MELINDA LUETKE

2
10-3-16 TANGLEFOOT LANE SIRAs
1445 [REDACTED] (PT, START PM) #
[REDACTED] (PT) ARRIVE IN
BETTENDORF, IOWA @ THE CROW
CREEK PARK TO MEET MELINDA
LUETKE (EPA PM). START PREPS
FOR ACCESS ACTIVITIES. BY CONTACT-
ING PROPERTY OWNERS / AGENTS.
1515 MELINDA LUETKE ARRIVES.
1520 ARRIVE @ (b) (6) HOME
TO HAVE HER SIGN AN ACCESS
AGREEMENT. (SITE OWNER)
1535 ARRIVE @ (b) (6) HOME
TO HAVE HER SIGN AN ACCESS
AGREEMENT. (SITE OWNER)
1550 ARRIVE @ BETTENDORF CHRISTIAN CHURCH.
TO MEET W/ JENN BENNETT ABOUT
SIGNING AN ACCESS AGREEMENT.
1615 START DEPARTS BETTENDORF, IA. #
END OF FIELD WORK FOR DAY.

10-3-16

10/3/16

Rite in the Rain

3
10-4-16 TANGLEFOOT LANE SIRAs
0730 Arrive on site. Begin marking
sample locations for utility
locate. Watkins conducts
safety meeting.
0800 Meeting w/ utility locate
1200 Depart site. Purchase field
supplies: ice and coolers.
1400 Arrive on site. Seagull
arrives on site.
1440 Arrive at OPT-1 (background)
Lat: 41.565328 Lon: -90.477241
1445 Collect sample 7219-1.
No groundwater encountered.
1605 Arrive at OPT-2
Lat: 41.560694 Lon: -90.4778347
1620 COLLECT 7219-2.
1745 Collect 7219-201, well
was unable to produce
enough water to collect
all samples. VOCs only.
1845 Depart site.

10-5-16 TANGLEFOOT LANE SIR A

0700 Arrive on site. [REDACTED] conducts safety meeting. Mobilize to DPT-3
0710 Arrive at DPT-3

Lat: 41.560674 Lon: -90.476527

0725 Collect sample 7219-3

0805 Collect sample 7219-202,
40'-44' bgs. Well was unable to produce enough water to collect all samples.
VOCs and SVOCs only.

0840 Arrive at DPT-4

Lat: 41.560558 Lon: -90.472568

0845 Collect sample 7219-4

0920 Collect sample 7219-203, US/MSD

1140 Arrive at DPT-5

Lat: 41.559808 Lon: -90.468729

1150 Collect sample 7219-5

1250 Collect sample 7219-204

1340 Arrive at DPT-6

Lat: 41.558520 Lon: -90.469929

1350 Collect sample 7219-6

1430 Collect sample 7219-205

1500 Arrive at DPT-7

Lat: 41.557662 Lon: -90.471726

10-5-16 TANGLEFOOT LANE SIR A

1525 COLLECTED 7219-7; 4'-5' BGS

NO GROUNDWATER ENCOUNTERED.

1630 RUSSELL & LUETKE DEPART TO DELIVER SAMPLE COOLERS TO FEOEx FOR SHIPMENT TO REGION 7 EPA LAB.
ARRIVE AT DPT-8. LONG:
LAT:

1700 COLLECTED 7219-8; 4'-5' BGS.

NO GROUNDWATER ENCOUNTERED.

1742 ARRIVE AT DPT-9. LONG: -90.47358982.
LAT: 41.55868007.

1752 COLLECTED 7219-9; 4'-5' BGS.

Due to sunset, temporary well was left in place overnight

1850 Depart site

10-6-16 TANGLEFOOT LANE SIRA

0700 Arrive on site, DPT-9.

(conduct) safety meeting.

0730 Collect sample 7219-206

Well unable to produce enough water to collect all samples.

VOCs, SVOCs, TPH, & pesticides were only samples collected.

0830 Arrive at DPT-10.

lat: 41.558698 long: -90.476837

0840 Collect sample 7219-10 ; 4'-5' BGS

0920 Collect sample 7219-207; 36'-40'

1005 ARRIVE AT DPT-11. BGS

LAT: 41.55909325 LONG: -90.47631187

1035 COLLECT SAMPLE 7219-11 ; 4'-5' BGS

NO GROUNDWATER ENCOUNTERED.

WILL STEP OUT 100' TO ATTEMPT GROUND-

WATER. LAT: 41.55862948 LONG: -90.47644926

(DPT-12)

LAT: 41.55862948

1245 ARRIVE @ DPT-12 LONG: -90.47644926

NO GROUNDWATER ENCOUNTERED.

COLLECT SAMPLE 7219-208 ; SWS-1

1300 COLLECT SAMPLE 7219-101 ; SWS-1

LAT: 41.55850170

1330 ARRIVE @ DPT-13 LONG: -90.47539841

1342 COLLECT SAMPLE 7219-12 ; 4'-5' BGS.

10-6-16 TANGLEFOOT LANE SIRA

GROUNDWATER NOT ENCOUNTERED.

LAT: 41.55986661

1510 ARRIVE @ DPT-14. LONG: -90.47251605

20A

1530 COLLECT SAMPLE 7219-102; SWS-3

1540 COLLECT SAMPLE 7219-102; SNS-3

GROUNDWATER TOO SHALLOW TO COLLECT SOILGAS.

1550 COLLECT SAMPLE 7219-210; 28'-32'

BGS

NO SOILGAS COLLECTED @ DPT-14.

1630 COLLECT SAMPLE 7219-211; SWS-2

1640 COLLECT SAMPLE 7219-103; SWE-2

1845 ARRIVE @ SWS-4

~~-COLLECT SAMPLE 7219~~ → ~~W~~

WILL COLLECT TOMORROW

1920 DEPART SITE. END OF FIELDWORK.



Rite in the Rain.

10-7-2016 TANGLEFOOT LANE SIRA
 0704 ARRIVE @ DPT-15. LAT: 41.56049532° LONG: -90.47359304°.

0800 COLLECT SAMPLE 7219-13; 4'-5' BGS

0810 COLLECT SAMPLE 7219-212; SWS-4

0820 COLLECT SAMPLE 7219-104; SWS-4

0900 COLLECT SAMPLE 7219-213; 40'-44'
LAT: 41.56048654 DGS

0930 ARRIVE @ DPT-16. LONG: -90.47643769°.
LAT: 41.56045531°.

~~0945 COLLECT 7219-14; 4'-5' BGS~~ NW

1000 COLLECT 7219-105; SS-1 LONG: 90.4734788°.

~~1030 COLLECT 7219-214; 16'-20' BGS~~

GROUND WATER TO SHALLOW TO COLLECT
SOIL-GAS SAMPLE @ DPT-16. & DPT-17

1100 ARRIVE @ DPT-17 LAT: LONG:
LAT: 41.56031488° LONG: -90.476404°

1115 COLLECT 7219-106; SS-2 LAT: 41.56031488°
LONG: -90.476404°

1120 COLLECT 7219-215; DPT-17 LAT: 41.56011433°
LONG: -90.476404°

1132 COLLECT 7219-107; SS-3 LAT: 41.56011431°
LONG: -90.4765668°

1156 COLLECT 7219-108; SS-4 LAT: 41.559995068°
LONG: -90.47641556°

1218 COLLECT 7219-216; RINSEATE BLANK

1230 [REDACTED] (START) & MINDY LUETKE (EPA)
DEPART BETTENDORF, IA.

1300 DEPART SITE FOR CONFERENCE CALL w/
TODO DAVIS & LUNCH.

1430 ARRIVE @ SS-5 LAT:
LONG:

1450 COLLECT 7219-109; SS-5 LAT:
LONG:

1510 ARRIVE @ SS-6 LAT:
LONG:

10-7-16 TANGLEFOOT LANE SIRA
 1523 COLLECT 7219-110; SS-6

1546 ARRIVE @ SS-7; LAT:
LONG:

1552 COLLECT 7219-111; SS-7

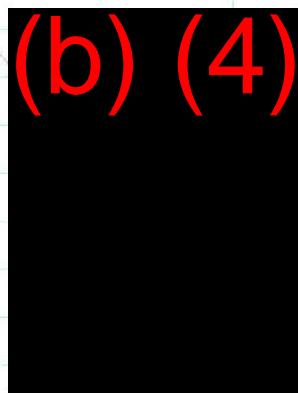
[REDACTED]

10-7-16
Rite in the Rain

3-12-18 TANGLEFOOT LANE SIRA

1630 ARRIVE AT (b) (6) TO INSTALL
VI PORT. PORT INNE CORNER OF BASEMENT
1700 (b) (4) WORKS ON ACCESS.
1820 END OF DAY.

(b) (4)



3-13-18 TANGLEFOOT LANE SIRA

1030 ARRIVE AT (b) (6)
TO INSTALL VI PORT. PORT IN
NE CORNER BASEMENT
1110 MOVE TO (b) (6)
TO INSTALL VI PORT. PORT NEAR
FURNACE IN UNFINISHED PORTION OF
BASEMENT.
1145 ARRIVE AT (b) (6)
TO INSTALL VI PORTS. NO PORT
INSTALLED IN THE PAVILLION. PORT INSTAL
IN STORAGE ROOM IN BASEMENT IN
RESIDENCE.
1220 LUNCH
1245 ARRIVE AT (b) (6)
RORO. TO TALK W/ PROPERTY OWNER
1255 ARRIVE AT (b) (6) TO
INSTALL VI PORT. PORT INSTALLED
IN QUILTING ROOM NEAR STORAGE
CLOSET.
1350 ARRIVE AT (b) (6) TO
SPEAK W/ PROPERTY OWNER. NOBODY
HOME.
1400 ARRIVE AT (b) (6) TO
INSTALL VI PORT. PORT IN WESTERN
CORNER OF BASEMENT.

Rite in the Rain

3-19-18 TANGLEFOOT LANE SIRA

1500 ARRIVE AT (b) (6)

PORT INSTALLED ALONG NORTH WALL
IN CENTER ROOM IN BASEMENT.

1600 BREAK

1800 ARRIVE AT PROPERTIES WHERE OWNERS
HAVE YET TO REPLY TO ACCESS PHONE
CALLS.

1838 FINISH FOR DAY

(b) (4)

3-19-18 TANGLEFOOT LANE SIRA

0930 ARRIVE AT HOMES WHERE OWNERS
HAVE YET TO REPLY TO ACCESS
PHONE CALLS.

1000 ARRIVE AT (b) (6)

GOT ACCESS & INSTALLED VI PORT.

1110 PICKED UP HELIUM FROM STORE.

1245 ARRIVE AT (b) (6)

INSTALLED VI PORT IN STORAGE ROOM

1330 ARRIVED AT (b) (6) TO
CONDUCT LEAK TESTING. NEGATIVE
READING FOR HELIUM.1400 ARRIVE AT (b) (6)
TO CONDUCT LEAK TEST. NEGATIVE
FOR HELIUM.1422 ARRIVE AT (b) (6)
TO CONDUCT LEAK TEST. NEGATIVE
READING FOR HELIUM.1438 ARRIVE AT (b) (6) TO
CONDUCT LEAK TEST. NEGATIVE
READING FOR HELIUM1500 ARRIVE AT (b) (6) TO
CONDUCT LEAK TEST. NEGATIVE
READING FOR HELIUM.1545 ARRIVE AT (b) (6)
CIRCLE TO LEAK TEST. NEGATIVE
READING FOR HELIUM.
Rite in the Rain.

3-14-18 TANGLEFOOT LANE SIRA.

1600 ARRIVE AT (b) (6)

TO INSTALL WI PORT.

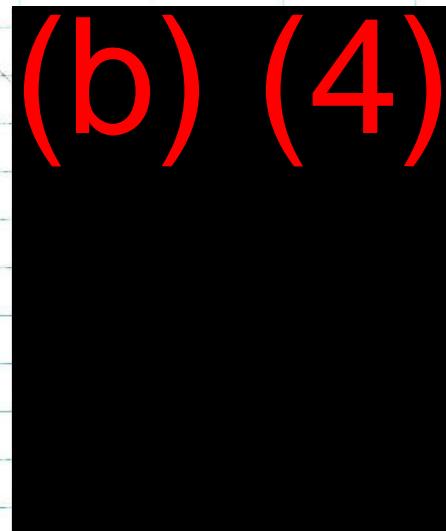
1630 ARRIVE AT (b) (6)

TO

INSTALL PORT.

1600 END OF DDY.

(b) (4)



3-15-18 TANGLEFOOT LANE SIRA.

0900 ARRIVE AT (b) (6)

RD

TO LEAK TEST. NEGATIVE READING
FOR HELIUM.

0920 ARRIVE AT (b) (6)

CIRCLE TO LEAK TEST. NEGATIVE
READING FOR HELIUM.

0945 ARRIVE AT (b) (6)

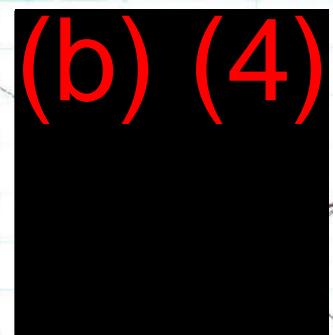
TO
LEAK TEST. NEGATIVE READING
FOR HELIUM.

1000 ARRIVE AT (b) (6)

TO LEAK TEST. NEGATIVE READING
FOR HELIUM.

1030 WATKINS & JUSTICE DEPART
BETTERENDORF.

(b) (4)



Rite in the Rain



16

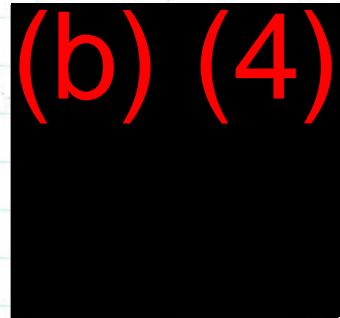
3-19-18 TANGLEFOOT LANE S-100
 1440 (b) (4) ARRIVES AT (b) (6)
 DRAVED TO SETUP SUMMA COUNTERS.
 1515 STARTED COLLECTING 7782-1
 1520 " " 7782-2
 ALL SAMPLING INFORMATION RECORDED
 ON FIELD SHEETS. YVONNE SMITH
 (SPA) ONSITE TO ASSIST w/ SAMPLING
 ACTIVITIES.

1540 MOVE TO (b) (6)

1550 STARTED COLLECTING 7782-3.

1600 WATKINS RETURNS TO HOTEL TO
 PREP FOR WEEK'S ACTIVITIES.

(b) (4)



17

3-20-18 TANGLEFOOT LANE S-100
 0745 ARRIVE AT (b) (6)
 0826 STARTING COLLECTING 7782-4
 0818 " " 7782-5
 0832 " " 7782-6
 0839 " " 7782-7
 0910 ARRIVING AT (b) (6)
 0924 START COLLECTING 7782-8
 0920 " " 7782-9
 0922 " " 7782-10
 0956 ARRIVING AT " (b) (6)
 1017 START COLLECTING 7782-11
 1019 " " 7782-12
 1036 ARRIVING AT (b) (6)
 1046 START COLLECTING 7782-13
 1047 " " 7782-14
 1200 ARRIVING AT (b) (6)
 1213 START COLLECTING 7782-15.
 1230 ARRIVING AT (b) (6)
 CIRCLE.
 1248 START COLLECTING 7782-16
 1256 " " 7782-17
 1430 ARRIVING AT (b) (6)
 1439 STOP COLLECTING 7782-1
 1440 " " 7782-2

Rite in the Rain

3-20-18 TANGLEFOOT LANE S-RA

1500 ARRIVE AT (b) (6)

1620 STOP COLLECTING 7782-3.

1800 WORK ON CONTACTING PROPERTY OWNERS WHO HAVEN'T REPLIED TO ACCESS CALLS.

1700 ARRIVE AT (b) (6)

1718 START COLLECTING 7782-18.

1720 " " 7782-19.

1815 RETURN TO HOTEL TO PREP FOR TOMORROW'S ACTIVITIES.

(b) (4)

3-21-18 TANGLEFOOT LANE S-RA

0745 ARRIVE AT (b) (6)

0802 STOP COLLECTING 7782-4.

0806 " " 7782-5

0804 " " 7782-6

0750 " " 7782-7

0830 ARRIVE AT (b) (6)

0840 STOP COLLECTING 7782-8

0837 " " 7782-9

0839 " " 7782-10

0915 ARRIVE AT (b) (6)

0924 STOP COLLECTING 7782-11

0926 " " 7782-12

0935 ARRIVE AT (b) (6)

0938 STOP COLLECTING 7782-13

0940 " " 7782-14

0950 ARRIVE AT (b) (6)

1015 COLLECT 7782-10!

1015 " 7782-10!-FD

1128 ARRIVE AT (b) (6)

1132 STOP COLLECTING 7782-15.

1350 ARRIVE AT (b) (6)

1417 START COLLECTING 7782-20

1420 " " 7782-21

1430 ARRIVE AT (b) (6)

ROAD. NOBODY HOME. *Rite in the Rain.*

3-21-18 TANGLEFOOT LANE SIRA
 → START (EPA HAVE ATTEMPTED
 TO CONTACT PROPERTY OWNER
 ALL WEEK. THEY HAD COMMUNICATED
 LAST WEEK THAT THEY WOULD BE
 IN TOWN ALL WEEK FOR VI
 SAMPLING ACCESS.

1437 ARRIVE AT (b) (6)
 ROAD.

1458 START COLLECTING 7782-22

1501 " " 7782-23

1505 " " 7782-24

1510 TALK w/ NEIGHBORING
 PROPERTY OWNER WHO WOULD
 LIKE TO HAVE PRIVATE WELL
 SAMPLED TOMORROW. SCHEDULED
 FOR 2:30 PM 3/22/18.

1640 ARRIVE AT (b) (6)

1649 STOP COLLECTION OF 7782-18

1653 " " n 7782-19

2030 ARRIVE AT (b) (6)

2047 START COLLECTING 7782-25

2052 " " 7782-26

2055 NEIGHBOR ARRIVES & BEGINS TO
 QUESTION START/EPA ABOUT
 SAMPLING ACTIVITIES. HE TELLS

3-21-18 TANGLEFOOT LANE SIRA
 THAT ALL OF THE (GROWN POINT
 CIRCLE NEIGHBORHOOD HAS
 PASSIVE RADON SYSTEMS IN ALL
 RESIDENCES. NONE OF THE PROPERTY
 OWNERS WERE AWARE OF THE
 SYSTEMS.

2108 END OF DAY.

(b) (4)

Rite in the Rain

3-22-18 TANGLEFOOT LANE SIRA

0940 ARRIVE AT (b) (6)

RD.

1015 COLLECT 7782-102, (MS,MSD).

1230 ARRIVE AT (b) (6)

CT.

1245 COLLECT 7782-103.

1340 ARRIVE AT (b) (6)

1347 STOP COLLECTING 7782-20

1350 " " 7782-21

1357 ARRIVE AT (b) (6)

1401 STOP COLLECTING 7782-22

1402 " " 7782-23

1406 " " 7782-24

1420 COLLECTED 7782-104

1445 ARRIVE AT (b) (6)

1453 COLLECTED 7782-105

PROPERTY OWNER SAID THERE WAS
ANOTHER HISTORICAL DUMP JUST WEST
OF THE INTERSECTION OF CROW CREEK
MIDDLE ROAD. HE WAS INTERESTED IF
IT MAY BE IMPACTING WATER QUALITY.

1630 ARRIVE AT (b) (6)

1640 COLLECT 7782-106

1730 COLLECT 7782-113-FB.

3-22-18 TANGLEFOOT LANE SIRA

(b) (4)

3-22-18

Rite in the Rain

8-21-18 TANGLEFOOT LANE S.R.A

0900 (b) (4) ARRIVES AT
HYVEE NEAR THE SITE TO MEET MINDY
LUETKE (SPA/OSC).
0930 ARRIVE AT (b) (6)
0942 BEGIN COLLECTING 7917-2
0945 " " 7917-1
1000 ARRIVE AT (b) (6)
1006 BEGIN COLLECTING 7917-4
1008 " " 7917-3
1020 ARRIVE AT (b) (6)
1036 BEGIN COLLECTING 7917-5
1044 " " 7917-6
1045 " " 7917-7
1048 " " 7917-8
1130 ARRIVE AT (b) (6)
1142 BEGIN COLLECTING 7917-9
1145 " " 7917-10
1230 LUNCH
1250 ARRIVE AT (b) (6)
1259 BEGIN COLLECTING 7917-12
1301 " " 7917-11
1430 ARRIVE AT (b) (6)
NOBODY HOME.
1435 ARRIVE AT (b) (6)
NOBODY HOME.

8-21-18 TANGLEFOOT LANE S.R.A

1448 ARRIVING AT (b) (6)
1600 ARRIVE BACK AT (b) (6)
1613 BEGIN COLLECTING 7917-14
1614 " " 7917-15
1622 ARRIVE AT (b) (6)
CIRCLE. NOBODY HOME.
1626 ARRIVE AT (b) (6)
CIRCLE.
1638 BEGIN COLLECTING 7917-16
1639 " " 7917-15
1656 RETURN TO HOTEL.

(b) (4)

8-21-18

Rite in the Rain

8-22-18 TANGLEFOOT LANE SIRA

0800 ARRIVE AT (b) (6)
 0818 BEGIN COLLECTING 7917-18
 0819 " " 7917-17
 0820 " " 7917-19
 0835 ARRIVE AT (b) (6)
 0854 BEGIN COLLECTING 7917-20.
 0900 ARRIVE AT (b) (6)
 0914 END COLLECTING 7917-2
 0915 " " 7917-1
 0930 ARRIVE AT (b) (6)
 0938 END COLLECTING 7917-4
 0939 " " 7917-3
 0949 ARRIVE AT (b) (6)
 1003 END COLLECTING 7917-5
 1009 " " 7917-8
 1010 " " 7917-7
 1011 " " 7917-6
 1026 ARRIVE AT (b) (6)
 1028 BEGIN COLLECTING 7917-21
 1030 ARRIVE AT (b) (6)
 ACCESS SET UP FOR LATER IN THE DAY.
 1041 ARRIVE AT (b) (6)
 1059 BEGIN COLLECTING 7917-23
 1100 " " 7917-22
 1104 " " 7917-24

8-22-18 TANGLEFOOT LANE SIRA

1111 ARRIVE AT (b) (6)
 END COLLECTING 7917-9
 " " 7917-10
 1220 ARRIVE AT (b) (6)
 1232 END COLLECTING 7917-12
 1233 " " 7917-11
 1241 ARRIVE AT (b) (6)
 1256 BEGIN COLLECTING 7917-26
 1257 " " 7917-25
 1450 ARRIVE AT (b) (6)
 1510 BEGIN COLLECTING 7917-27
 1510 " " 7917-28
 1520 ARRIVE AT (b) (6)
 1608 END COLLECTING 7917-14
 1609 " " 7917-13
 1618 ARRIVE AT (b) (6)
 CIRCLE.
 1621 END COLLECTING 7917-16
 1622 " " 7917-15
 1645 ARRIVE HOTEL.

(b) (4)

8-22-18

Rained in Rain

8-23-18 TANGLEFOOT LANE SRA

0750 ARRIVE AT (b) (6)

0801 END COLLECTING 7917-18

0802 " " 7917-17

0803 " " 7917-19.

0815 ARRIVE AT (b) (6)

0821 END COLLECTING 7917-20.

0830 ARRIVE AT (b) (6)

1000 END COLLECTING 7917-21.

1010 ARRIVE AT (b) (6)

1035 END COLLECTING 7917-22

1035 " " 7917-23

1038 " " 7917-24

1056 ARRIVE AT (b) (6)

1110 COLLECTED 7917-101

1205 ARRIVE AT (b) (6)

1211 END COLLECTING 7917-26

1212 " " 7917-26

1230 COLLECTED 7917-102-FB

1245 COLLECTED 7917-104-FB

1320 ARRIVE AT (b) (6)

1450 END COLLECTING 7917-27

1450 END COLLECTING 7917-28

1500 COLLECT 7917-29-FB.

1530 DEPART BETTENDORF, IA.

(b) (4)

APPENDIX E
FIELD SHEETS

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 206 **QC Code:** __ **Matrix:** Water **Tag ID:** 7219-206-__

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane **City:** Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: DPT-9 ; 36'-40' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.558⁵⁰007 Sample Collection: Start: 10/16/16 07:30
Longitude: -90.47858182 End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH <2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH <2	180 Days	1 Metals Dissolved in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH <2, 4 Deg C	28 Days	1 Mercury Dissolved in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH <2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH <2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH <2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 207 **QC Code:** _____ **Matrix:** Water **Tag ID:** 7219-207-_____

Project ID: THDB7C7	Project Manager: Todd Davis
Project Desc: Tanglefoot Lane	State: Iowa
City: Bettendorf	
Program: Superfund	
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION	Site ID: B7C7 Site OU: 00

Location Desc: DPT-10; 36°-40' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.558648°</u>		Start: <u>10/6/16</u>	<u>09:20</u>
Longitude: <u>-90.476837°</u>		End: <u> / / </u>	<u> : </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 7219 Sample Number: 208 QC Code: _____ Matrix: Water Tag ID: 7219-208-_____

Project ID:	THDB7C7	Project Manager:	Todd Davis
Project Desc:	Tanglefoot Lane	State:	Iowa
City:	Bettendorf		
Program:	Superfund		
Site Name:	Tanglefoot Lane - SITE EVALUATION/DISPOSITION		
		Site ID:	B7C7
		Site OU:	00

Location Desc: SWS - 1

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: <u>10/6/16</u>	<u>12:45</u>
Longitude:		End: <u> / / </u>	<u> : </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 209 **QC Code:** _____ **Matrix:** Water **Tag ID:** 7219-209-_____

Project ID: THDB7C7	Project Manager: Todd Davis
Project Desc: Tanglefoot Lane	State: Iowa
City: Bettendorf	
Program: Superfund	
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION	Site ID: B7C7 Site OU: 00

Location Desc: SW S-3

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____		10 / 6 / 16	16 : 30
Longitude: _____		End: _____	_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 210 **QC Code:** _____ **Matrix:** Water **Tag ID:** 7219-210-_____

Project ID: THDB7C7	Project Manager: Todd Davis
Project Desc: Tanglefoot Lane	
City: Bettendorf	State: Iowa
Program: Superfund	
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION	Site ID: B7C7 Site OU: 00

Location Desc: DPT-14 ; 28'-32' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.55986661°</u>		<u>10/6/16</u>	<u>15:50</u>
Longitude: <u>-90.47251605°</u>		End: ____/____/____	____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 201 QC Code: _____ Matrix: Water Tag ID: 7219-201-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-2 ; 34°-38' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.340696 Sample Collection: Start: 10/4/16 17:50
Longitude: -90.478347 End: ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH <2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH <2	480 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH <2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH <2	480 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH <2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH <2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 Sample Number: 202 QC Code: _____ Matrix: Water Tag ID: 7219-202-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-3; 40° 44' BG S

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.560474	Sample Collection: Start: 10/5/16	08:00	
Longitude: -90.476527	End: ____/____/____	____:	____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved in Water by ICP/MS
1 - 1 liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	20 Days	1 Mercury Dissolved in Water
1 - 1 liter plastic bottle	HNO3 to pH<2	180 Days	4 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 Sample Number: 203 QC Code: _____ Matrix: Water Tag ID: 7219-203-_____

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane **City:** Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: D PT - A ; 32'-36' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.560556 Sample Collection: Start: 10/5/10 09:20
Longitude: -90.472568 End: / / :

Laboratory Analyses:

Container		Preservative		Holding Time		Analysis	
1 - 1 Liter plastic bottle		5 mL of HNO3/L to pH<2		28	Days	1 Mercury in Water	
1 - 1 Liter plastic bottle		Field Filtered, HNO3 to pH<2		180	Days	1 Metals - Dissolved, in Water by ICP/MS	
1 - 1 Liter plastic bottle		Field Filtered, HNO3 to pH<2, 4 Deg C		28	Days	1 Mercury - Dissolved, in Water	
1 - 1 Liter plastic bottle		HNO3 to pH<2		180	Days	1 Metals in Water by ICP/MS	
4 - 40mL VOA vial		4 Deg C, HCL to pH<2		14	Days	1 VOCs in Water by GC/MS for Low Detection Limits	
2 - 40mL VOA vial		4 Deg C, HCL to pH<2		14	Days	1 Volatile TPH in Water by GC/MS	
1 - 80 oz amber glass		4 Deg C		7	Days	1 Semi-Volatile Organic Compounds in Water	
1 - 80 oz amber glass		4 Deg C		7	Days	1 Pesticides in Water by GC/EC	
1 - 80 oz amber glass		4 Deg C		7	Days	1 Herbicides in Water by GC/EC	
1 - 80 oz amber glass		4 Deg C		7	Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID	

Sample Comments:

(N/A)

MS / MSD

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 204 QC Code: _____ Matrix: Water Tag ID: 7219-204-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-5; 28'-32' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.559809	Sample Collection: Start: 10/5/16	12:50	
Longitude: -90.468729	End: ____/____/____	____:	____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 Sample Number: 205 QC Code: _____ Matrix: Water Tag ID: 7219-205-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-6; 36° 40' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.568520	Sample Collection: Start: 10/5/16	14:30	
Longitude: -90.469924	End: ____/____/____	____:	____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 liter plastic bottle	5 mL of HNO3/l to pH<2	28 Days	1 Mercury in Water
1 - 1 liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals Dissolved in Water by ICP/MS
1 - 1 liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury Dissolved in Water
1 - 1 liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 225 QC Code: FB Matrix: Water Tag ID: 7219-225-FB

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: Water Trip Blank sample

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start:	9/28/04 14:30
Longitude:	_____	End:	____:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 **Sample Number:** 1 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7219-1-___

Project ID: THDB7C7

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 **Site OU:** 00

Location Desc: DPT-1 (background location); 4'-5' BGS

External Sample Number: 7

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: 41.54332°

Sample Collection: Start: 10/4/16

14:45

Longitude: -90.177241

End:

Laboratory Analyses:

Container **Preservative** **Holding Time** **Analysis**
 1 - 6 Liter Canister None 60 Days 1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER #: 3243

Pressures (ps):

START: -27

S To P :-5

NOTE: NO REGULATORS USED
FOR SAMPLE COLLECTION.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 2 QC Code: _____ Matrix: Air Tag ID: 7219-2-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-2 ; 4'-5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.540696		Start: 10/4/16	16:20
Longitude: -90.478347		End: ____/____/____	____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister #: 4566

Pressures (psi):

START: -28

STOP: -5

NOTE: NO REGULATORS USED FOR
SAMPLE COLLECTION.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 3 QC Code: _____ Matrix: Air Tag ID: 7219-3-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-3 (4'-5' bgs)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.540674	Sample Collection: Start: 10/5/16	07:25	
Longitude: -90.474527	End: ____/____/____	__:	__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister #: 3257
pressure (psi)
Start: -28
Stop: -5

Note: No regulator used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 4

QC Code: _____

Matrix: Air

Tag ID: 7219-4-_____

Project ID: THDB7C7

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: DPT-4; 4'-5' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560558

Sample Collection: Start: 10/2/16

08:45

Longitude: -90.472548

End: ____/____/____

____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister#: 4562
pressure (psi)
start:-28.
stop:-5

Note: No regulator used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 5 QC Code: _____ Matrix: Air Tag ID: 7219-5-_____

Project ID: THDB7C7 Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-5; 4'-5' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____

Latitude: 41.559808 Sample Collection: Start: 10/5/16 11:50

Longitude: -90.46729 End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Cannister #: 4559
pressure (psi)

Start: -28
Stop: -5

NOTE: No regulator used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 6 QC Code: _____ Matrix: Air Tag ID: 7219-6-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-6; 1'-5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.558520		Start: 16/5/16	13:40
Longitude: -90.469924		End: ____/____/____	____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Cannister #: L5187
pressure (psi)
start: -29
stop: 5

NOTE: No regulator used for
sample locations.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 7

QC Code: __

Matrix: Air

Tag ID: 7219-7-__

Project ID: THDB7C7

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: DPT-7, 4'-5' BGS

External Sample Number: _____

Expected Conc:

(or Circle One: Low Medium High)

Date

Time(24 hr)

Latitude: 41.557662

Sample Collection: Start: 10/5/16

15:25

Longitude: -90.471724

End: ____/____/____

____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Cannister: L5195

pressure (psi)

Start: -29

Stop: -5

NOTE: No regulator used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 8 QC Code: _____ Matrix: Air Tag ID: 7219-8-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-0 ; 4'-5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.556152°</u>		<u>10/5/16</u>	<u>17:00</u>
Longitude: <u>-90.474811°</u>		<u>/ /</u>	<u>: :</u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER: #444

PRESSURE (ps):

START: -28

STOP: -5

NOTE: NO REGULATOR USED
FOR SAMPLE COLLECTION

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 9 QC Code: _____ Matrix: Air Tag ID: 7219-9-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT- 9 ; 4'-5' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: 41.5586007° Sample Collection: Start: 10/5/16 14:52
Longitude: -90.47858982° End: _____ :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER: 8825

PRESSURE (psi) :

START: -29

STOP: 5

NOTE: NO REGULATOR USED
FOR SAMPLE COLLECTION.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 10 QC Code: _____ Matrix: Air Tag ID: 7219-10-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-16 ; 4'-5' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: 41.558698 Sample Collection: Start: 10/16/16 0840
Longitude: -90.476837 End: ____/____/____ :____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Cannister#: A7496

pressure (psi):

Start: -28

Stop: -5

NOTE: No regulators used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 11 QC Code: _____ Matrix: Air Tag ID: 7219-11-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-11 ; 4'-5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.56909326°</u>	Sample Collection: Start: <u>10/6/16</u>	<u>10:35</u>	
Longitude: <u>-90.47631187°</u>	End: <u> / / </u>	<u> : </u>	

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER:

Pressure (ps):

START: -29
STOP: -5

Note: No regulator used
for sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 12 QC Code: _____ Matrix: Air Tag ID: 7219-12-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-13; 4'-5' BGS

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: 41.55850140°	Sample Collection: Start: 10/0/16	13:42	
Longitude: -90.47599841°	End: ____/____/____	____:____	

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister: 3003

Pressure (psi):

Start: -28

Stop: -5

Note: NO REGULATOR USED
FOR SAMPLE COLLECTION.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 13 QC Code: _____ Matrix: Air Tag ID: 7219-13-_____

Project ID: THDB7C7
Project Desc: Tanglefoot Lane
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Project Manager: Todd Davis

State: Iowa

Site ID: B7C7 Site OU: 00

Location Desc: ~~DPT-1A; 7ft 4'-5' BGS~~ DPT-15; 4'-5' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date ~~10/17/16~~ Time(24 hr) ~~0800~~
Latitude: ~~41.56648532°~~ Sample Collection: Start: ~~10/17/16~~ End: ~~10/17/16~~
Longitude: ~~-90.47359304°~~

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LAT: 41.56648532°
LONG: -90.47359304°

Canister #: 4309

pressure (psi):

Start: -28

Stop: -5

NOTE: No regulator used
during sample collection

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 18 QC Code: FB Matrix: Air Tag ID: 7219-18-FB

Project ID:	THDB7C7	Project Manager:	Todd Davis
Project Desc:	Tanglefoot Lane		
City:	Bettendorf	State:	Iowa
Program:	Superfund		
Site Name:	Tanglefoot Lane - SITE EVALUATION/DISPOSITION	Site ID:	B7C7
		Site OU:	00

Location Desc: Air Field Blank sample

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 10/2/16	16:45
Longitude:	_____	End: ____/____/____	__:_

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 101 QC Code: _____ Matrix: Solid Tag ID: 7219-101-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: SWS-1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.55912 Sample Collection: Start: 10/6/16 13:00
Longitude: -90.469404 End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, sodium bisulfate (2 vials), MeOH (1 vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 102 QC Code: _____ Matrix: Solid Tag ID: 7219-102-

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: ~~SW 7-13'~~ SWS-3

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: 41.559854° Sample Collection: Start: 10/6/16 15:40
Longitude: -90.431960° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, sodium bisulfate (2 vials), MeOH (1 vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 103 QC Code: _____ Matrix: Solid Tag ID: 7219-103-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: SWS-2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: 41.559678 Sample Collection: Start: 10/6/16 16:40
Longitude: -90.470531 End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, sodium bisulfate (2 vials), MeOH (1 vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 104 **QC Code:** ___ **Matrix:** Solid **Tag ID:** 7219-104-___

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: SWS-4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.560274° Sample Collection: Start: 10/7/16 08:20
Longitude: -90.483205° End: :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
2 - 40mL VOA vial	4 Deg C	14 Days	1 Volatile TPH in Soil by GC/MS
4 - 40mL VOA vials (soil VOA 5035)	4 Deg C, sodium bisulfate (2 vials), MeOH (1 vial)	14 Days	1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 105 QC Code: _____ Matrix: Solid Tag ID: 7219-105-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: SS-1

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.56046631° Sample Collection: Start: 10/2/16 10:00

Longitude: -90.47347611° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 106 QC Code: _____ Matrix: Solid Tag ID: 7219-106-_____

Project ID: THDB7C7

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: SS-2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.56031488° Sample Collection: Start: 10/7/16 11:15

Longitude: -90.47640433° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 107 QC Code: ___ Matrix: Solid Tag ID: 7219-107-___

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **SS-3**

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.560 114.34° Sample Collection: Start: 10/4/16 11:32

Longitude: -90.476 566.10° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 108 **QC Code:** __ **Matrix:** Solid **Tag ID:** 7219-108-__

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: SS-4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.55495068° Sample Collection: Start: 10/7/16 11:56

Longitude: -90.47641556° End: ___/___ ___:___

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 109 QC Code: _____ Matrix: Solid Tag ID: 7219-109-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: 55-5 External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.5591245° Sample Collection: Start: 10/3/16 14:50

Longitude: -90.476210° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 110 QC Code: _____ Matrix: Solid Tag ID: 7219-110-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: SS-EP 11 SS-6

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.559306° Sample Collection: Start: 10/7/16 15:23

Longitude: -90.475130° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 111 **QC Code:** _____ **Matrix:** Solid **Tag ID:** 7219-111-_____

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane **City:** Bettendorf **State:** Iowa
Program: Superfund **Site Name:** Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: SS-7

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: <u>41.559346°</u>		<u>10/3/16</u>	<u>15:52</u>
Longitude: <u>-90.474125°</u>		End: <u> / / </u>	<u> : </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 8 oz glass	4 Deg C	28 Days	1 Mercury in Soil or Sediment
1 - 8 oz glass	4 Deg C	180 Days	1 Metals in Solids by ICP-AES
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Soil
1 - 8 oz glass	4 Deg C	14 Days	1 Pesticides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Herbicides in Soil by GC/EC
1 - 8 oz glass	4 Deg C	14 Days	1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 211 **QC Code:** __ **Matrix:** Water **Tag ID:** 7219-211-__

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc:

SWS-2

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.559678 Sample Collection: Start: 10/6/16 16:30
Longitude: -70.470531 End:

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 **Sample Number:** 212 **QC Code:** ___ **Matrix:** Water **Tag ID:** 7219-212-___

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: SWS-4

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: 41.560274° Sample Collection: Start: 10/3/16 08:10
Longitude: -90.483205° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 213 QC Code: _____ Matrix: Water Tag ID: 7219-213-_____

Project ID: THDB7C7 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: DPT-15 ; 40°-44' BG S

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: 41.56048532° Sample Collection: Start: 10/3/16 : 09:00

Longitude: -90.47359804° End: ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2,	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7219 **Sample Number:** 215 **QC Code:** ___ **Matrix:** Water **Tag ID:** 7219-215-___

Project ID: THDB7C7 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: DPT-17; 16'-20' BGS

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: 41.557899° Sample Collection: Start: 10/7/16 11:20

Longitude: -90.476411° End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides In Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7219 Sample Number: 216 QC Code: _____ Matrix: Water Tag ID: 7219-216-_____

Project ID: THDB7C7

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: RINSEATE BLANK

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 10/7/16 12:16

Longitude: _____

End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
4 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
2 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Herbicides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 1 QC Code: _____ Matrix: Air Tag ID: 7782-1-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00
(b) (6) (SOIL GAS)
Location Desc: _____

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: <u>3/19/18</u>	<u>15:15</u>
Longitude:	_____	End: <u>3/20/18</u>	<u>14:39</u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3243

REGULATOR NO.: A0298789-7

PRESSURE: START: -29.5
(ps:) STOP: -5

NOTE: SUB-SLAB PORT LOCATED IN STORAGE
ROOM IN BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 2 QC Code: _____ Matrix: Air Tag ID: 7782-2-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 3/19/18 15:20
Longitude: _____ End: 3/20/18 14:40

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4559

REGULATOR NO.: A0298794 -10

PRESSURE (psi): START = 29.5
STOP = 0

NOTE: INDOOR AIR SAMPLE COLLECTED
IN LIVINGROOM ON MAIN FLOOR.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 3 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-3-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/19/18 15:50
Longitude: _____ **End:** 3/20/18 15:20

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER No. : 3247

REGULATOR NO.: A0298496-10

PRESSURE (psi) : START : -29.5
STOP : -5

NOTE: INDOOR AIR SAMPLE COLLECTED

IN NW BASEMENT SITTING ROOM.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 4 QC Code: _____ Matrix: Air Tag ID: 7782-4-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 9/20/18 08:26
Longitude: _____ End: 9/21/18 08:02

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER No. : 3250

REGULATOR No. : A0271055-3

PRESSURE (psi) : START: -30

STOP: -0

NOTE: INDOOR AIR SAMPLE COLLECTED IN
WESTERN PORTION OF BASEMENT OF
BELLOW RESIDENCE.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 5 QC Code: _____ Matrix: Air Tag ID: 7782-5-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) RESIDENCE (SUB-SLAB SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start:	3/20/18 08:18
Longitude:	_____	End:	3/21/18 08:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4565

REGULATOR NO.: A0282486-5

PRESSURE (psi): START: -29.5
STOP: -0

NOTE: SUB-SLAB PORT LOCATED IN STORAGE
Room in WESTERN PORTION OF BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 6 QC Code: _____ Matrix: Air Tag ID: 7782-6-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (AMBIENT AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 3/20/18 08:32

Longitude: _____ End: 3/21/18 08:04

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3014

REGULATOR NO.: A0289196-1

PRESSURE (psi): START : -30
STOP : -4

NOTE: AMBIENT AIR SAMPLE COLLECTED
ON WESTERN SIDE OF RESIDENCE.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 7 QC Code: ___ Matrix: Air Tag ID: 7782-7-___

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/20/18 08:39
Longitude: _____ End: 3/21/18 07:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4560

REGULATOR No.: A02994B6-4

PRESSURE (psi): START: -29

STOP: -4

NOTE: INDOOR AIR SAMPLE COLLECTED IN
STORAGE CLOSET IN WESTERN PORTION
OF EVENT PAVILLION.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 8 QC Code: _____ Matrix: Air Tag ID: 7782-8-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) ~~(SOIL GAS)~~ → (AMBIENT AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 3/20/18 09:24

Longitude: _____ End: 3/21/18 08:40

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4562

REGULATOR NO.: A0334482-9

PRESSURE (psi): START: -29

STOP: -4

NOTES: AMBIENT AIR SAMPLE COLLECTED
ON BACK DECK OF RESIDENCE.

PROPERTY OWNER: _____

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 9 QC Code: _____ Matrix: Air Tag ID: 7782-9-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR) (SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 9/20/18 09:20
Longitude: _____ End: 9/21/18 08:37

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3000

REGULATOR NO.: A0Z7106Z-10

PRESSURE (ps): START: -27

STOP: -3

NOTES: SOIL GAS PORT LOCATED IN
STORAGE CLOSET IN BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 10 QC Code: _____ Matrix: Air Tag ID: 7782-10-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(~~AMBIENT AIR~~)^{INDOOR} (Indoor)
AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/20/18	09:22
Longitude:		End: 3/21/18	08:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2229

REGULATOR NO.: A0106061-5

PRESSURE (psi): START: -27

STOP: -3

NOTES: INDOOR AIR SAMPLE COLLECTED
IN LIVING ROOM ON MAIN FLOOR
OF RESIDENCE.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 11 QC Code: _____ Matrix: Air Tag ID: 7782-11-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/20/18 10:17
Longitude: _____ End: 3/21/18 09:24

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3032

REGULATOR NO.: 7332107

PRESSURE (psi): START: -30

STOP: -0

NOTES: SOIL GAS PORT LOCATED NW CORNER OF
BASEMENT IN STORAGE ROOM.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 12 QC Code: _____ Matrix: Air Tag ID: 7782-12-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: _____ Sample Collection: Start: 3/20/18 10:19
Longitude: _____ End: 3/21/18 09:26

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 127 L5203

REGULATOR NO.: A0299486-5

PRESSURE (psi): START: -30

STOP: -5

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVINGROOM ON MAIN FLOOR OF RESIDENCE

PROPERTY OWNER: _____

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 13 QC Code: _____ Matrix: Air Tag ID: 7782-13-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/20/18	10:46
Longitude:		End: 3/21/18	07:38

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: L 5197

REGULATOR NO.: A0271059-2

PRESSURE (psi): START: -29.5

STOP: -5

NOTES: SUB-SLAB PORT IN QUILTING ROOM IN
BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 14 QC Code: _____ Matrix: Air Tag ID: 7782-14-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **(b) (6)** (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/20/18	10:47
Longitude:		End: 3/21/18	09:46

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: LS113

REGULATOR NO.: A0271058 - 0

PRESSURE (psi): START: -30

STOP: -5

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 15 QC Code: _____ Matrix: Air Tag ID: 7782-15-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		3/20/18	12:13
Longitude:		3/21/18	11:32

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2220

REGULATOR NO.: A0283642-6

PRESSURE (psi): START: -30

STOP: -2

NOTES: INDOOR AIR SAMPLE COLLECTED IN
RECREATIONAL ROOM IN BASEMENT. OWNER
NOTIFIED START/SPA OF RADON SYSTEM CURRENTLY
OPERATING IN HOME AFTER TEST BEGAN.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 16 QC Code: _____ Matrix: Air Tag ID: 7782-16-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 3/20/18	12:48
Longitude:	_____	End: 3/21/18	11:55

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO. : 3025

REGULATOR NO. : A0283641-10

PRESSURE (ps.) : START : -30

STOP : -7

NOTES: SUB-SLAB PORT LOCATED IN UNFINISHED
STORAGE ROOM IN BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 17 QC Code: _____ Matrix: Air Tag ID: 7782-17-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/20/18	12:00
Longitude:	_____	End: 3/21/18	11:57

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 65107

REGULATOR NO.: 7273195

PRESSURE (psi): START: -20.5

STOP: -4

NOTES: INDOOR AIR SAMPLE COLLECTED IN LIVINGROOM
ON MAIN FLOOR OF RESIDENCE.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 18 QC Code: _____ Matrix: Air Tag ID: 7782-18-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18 17:18

Longitude: _____

End: 3/21/18 16:49

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: L5200

REGULATOR NO.: A0334874-³⁹⁴⁻³~~5~~mm

PRESSURE (psi): START: -29.5

STOP: -4

NOTES: SUB-SLAB PORT IS IN STORAGE ROOM
IN WESTERN PORTION OF BASEMENT

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 19 QC Code: _____ Matrix: Air Tag ID: 7782-19-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/20/18	17:20
Longitude:	_____	End: 3/21/18	16:53

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4551

REGULATOR NO.: 126465

PRESSURE (psi): START: -30
STOP: -7

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

Property Owner:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 20 QC Code: _____ Matrix: Air Tag ID: 7782-20-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SAB-SOIL & GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/21/18	14:17
Longitude:	_____	End: 3/22/18	13:47

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2Z19.

REGULATOR NO.: A0298792-7

PRESSURE (psi): START: -30
STOP: -7.5

NOTE: SUB-SLAB PORT LOCATED IN NORTHEAST CORNER OF BASEMENT IN A STORAGE AREA.

PROPERTY OWNERS:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 21 QC Code: _____ Matrix: Air Tag ID: 7782-21-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/21/18	14:20
Longitude:	_____	End: 3/22/18	13:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4556

REGULATOR NO.: A0283640-10

PRESSURE (psi): START: -30
STOP: -5

NOTE: INDOOR AIR SAMPLE COLLECTED IN LIVINGROOM
ON MAIN FLOOR OF HOME.

PROPERTY OWNERS:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 22 QC Code: _____ Matrix: Air Tag ID: 7782-22-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SUBLAB SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/21/18 14:58
Longitude: _____ End: 3/22/18 14:01

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 300Z

REGULATOR NO.: A0334866-5

PRESSURE (psi): START: -29.5

STOP: -24

NOTES: SUB-SLAB PORT LOCATED IN STORAGE
CLOSET IN WESTERN PORTION OF BASEMENT.

PROPERTY OWNER :

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 23 QC Code: _____ Matrix: Air Tag ID: 7782-23-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/21/18 15:01
Longitude: _____ End: 3/22/18 14:04

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4568

REGULATOR NO.: A0334874-10

PRESSURE (psi): START: -30

STOP: -3

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 24 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-24-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane ~ SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (AMBIENT AIR)

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/21/18 15:05
Longitude: _____ **End:** 3/22/18 14:06

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER No.: 3235

REGULATOR No.: A0283640-9

PRESSURE (psi): START: -30

STOP := S

NOTES: AMBIENT AIR SAMPLE COLLECTED JUST
WEST OF HOUSE.

PROPERTY OWNERS:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 25 QC Code: _____ Matrix: Air Tag ID: 7782-25-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/21/18	20:47
Longitude:		End: 3/22/18	19:53

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4557

REGULATOR NO.: 7262306

PRESSURE (psi): START: -29

STOP: 0

NOTES: SUB-SLAB PORT LOCATED IN UNFINISHED
PORTION OF BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 26 QC Code: _____ Matrix: Air Tag ID: 7782-26-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/21/18 20:08:52
Longitude: _____ End: 3/22/18 19:55

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3017

REGULATOR NO.: A0289193-8

PRESSURE (psi): START: -30

STOP: -1

NOTES: INDOOR AIR SAMPLE COLLECTED
IN LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER: _____

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 27 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-27-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: TRIP BLANK

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3 22 18 **22** : 00
Longitude: _____ **End:** :

Laboratory Analyses:

Container **Preservative** **Holding Time** **Analysis**
 1 - 6 Liter Canister None 60 Days 1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

TRIP BLANK Sample

CANISTER No. :

Sample Collected By: T

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 101 QC Code: _____ Matrix: Water Tag ID: 7782-101-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/21/18	10:15
Longitude:		End: _____	____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Notes: Collected from spickett on back side of house. No treatment of water. Well approx 100'-120' deep. DRINKING WATER WELL.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

101-FD

ASR Number: 7782 Sample Number: 112 QC Code: _____ Matrix: Water Tag ID: 7782-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/21/18 10:15
Longitude: _____ End: ____/____/____ ____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A) FIELD DUPLICATE SAMPLE

NOTES: COLLECTED FROM SPICKEYT ON BACK SIDE
OF HOUSE. NO TREATMENT OF WATER. WELL
APPROX 100' - 120' DEEP. DRINKING WATER WELL.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 102 QC Code: _____ Matrix: Water Tag ID: 7782-102-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start: 3/22/18	10:15
Longitude:		End: ____/____/____	____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
1 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs In Water by GC/MS for Low Detection Limits
1 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
3 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
3 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
3 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments: MS/MSD COLLECTED

(N/A)

NOTES : SAMPLE COLLECTED FROM SPICERET NEAR GARAGE. NO TREATMENT OF WATER FROM THIS SPICERET. THIS WELL PROVIDES DRINKING WATER FOR 3 HOMES IN AREA. OWNERS ARE MOVING SOON BUT WILL HAVE MAIL FORWARDED.

PROPERTY OWNER :

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 103 QC Code: _____ Matrix: Water Tag ID: 7782-103-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: _____ Sample Collection: Start: 3/22/18 12:40
Longitude: _____ End: / / : _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A) NOTES: DRINKING WATER WELL.
COLLECTED SAMPLE FROM RENTAL PROPERTY
NEXT DOOR AT KITCHEN SINK. WHERE OWNER
SAID WATER WAS NOT TREATED. WELL SERVICES
MULTIPLE RESIDENCES.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 104 QC Code: _____ Matrix: Water Tag ID: 7782-104-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/22/18	14:20
Longitude:	_____	End: _____	_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

DRINKING WATER WELL.

NOTES: COLLECTED SAMPLE FROM SPICER ON
BACK SIDE OF HOUSE. NO TREATMENT
ON WATER.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 105 QC Code: _____ Matrix: Water Tag ID: 7782-105-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/28/16	14:53
Longitude:		End: / /	:__

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A) DRINKING WATER WELL.

NOTE: COLLECTED SAMPLE FROM SAMPLING SPICKET
IN MECHANICAL ROOM IN BASEMENT. NO WATER
TREATMENT AT SPICKET.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 106 QC Code: _____ Matrix: Water Tag ID: 7782-106-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		3/22/18	16:40
Longitude:		End: / /	/ : /

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Notes: SAMPLE COLLECTED FROM PIPE THAT DISCHARGES INTO A POND IN FRONT YARD. OWNERS DO NOT USE FOR DRINKING WATER.

PROPERTY OWNER :

Sample Collected By (b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 113 QC Code: FB Matrix: Water Tag ID: 7782-113-FB

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: Field Blank

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: 3/22/18	17:30	
Longitude: _____	End: _____	_____	_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

FIELD BLANK SAMPLE.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 114 QC Code: FB Matrix: Water Tag ID: 7782-114-FB

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: LDL VOA/TPH VOA (GRO) Trip Blank sample

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: <u>3</u> / <u>22</u> / <u>18</u>	<u>22</u> : <u>00</u>	
Longitude: _____	End: <u> </u> / <u> </u> / <u> </u>		<u> </u> : <u> </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

Prepared by the LTAB.

TRIP BLANK SAMPLE

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 1 QC Code: _____ Matrix: Air Tag ID: 7917-1-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Start: 8/21/18 09:45

Longitude: _____ End: 8/22/18 09:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

FIRST FLOOR LIVING ROOM

REGULATOR ID: A027 1062-10

CANISTER ID: 3261

PRESSURE: START: -29 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 2 QC Code: _____ Matrix: Air Tag ID: 7917-2-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) Sub-SLAB

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 8/21/18 09:42
Longitude: _____ End: 8/22/18 09:14

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) WESTERN CORNER OF BASEMENT.

REGULATOR ID: 129903-7277160

CANISTER ID: L5196

PRESSURE: START: -28 "Hg
STOP: -28 "Hg

NOTE: MOISTURE FOUND IN SUB-SLAB PORT LINE. MOST LIKELY CAUSED BY HIGH GROUNDWATER LEVELS DUE TO HEAVY

Sample Collected By: TT RAIN IN THE AREA THIS WEEK.

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 3 QC Code: _____ Matrix: Air Tag ID: 7917-3-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:08
Longitude:		End: 8/22/18	09:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

1ST FLOOR LIVINGROOM

CANISTER ID: L5207

REGULATOR ID: 128510-7273159

PRESSURE: STAR: -29 "Hg

STOP: -3.5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 4 QC Code: _____ Matrix: Air Tag ID: 7917-4-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] INDOOR AIR

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: Time(24 hr):
Latitude: _____ Sample Collection: Start: 8/21/18 10:06
Longitude: _____ End: 8/22/18 07:38

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) BASEMENT IN QUILTING ROOM.

CANISTER ID: 16979

REGULATOR ID: A0282406-5.

PRESSURE : START: -30 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 5 QC Code: _____ Matrix: Air Tag ID: 7917-5-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:36
Longitude:		End: 8/22/18	10:03

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

PAVILION STORAGE ROOM.

CANISTER ID: 15112

REGULATOR ID: A0283642 - 7

PRESSURE: START: - 30 "Hg

STOP: - 0 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 6 QC Code: _____ Matrix: Air Tag ID: 7917-6-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/10	10:44
Longitude:		End: 8/22/10	10:11

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT SW CORNER ROOM OF RESIDENCE.

CANISTER ID: 3013

REGULATOR ID: A0299485-10

PRESSURE: START: -29.5 "Hg

END: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 7 QC Code: _____ Matrix: Air Tag ID: 7917-7-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

- SUB-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: <u>8/21/18</u>	<u>10:45</u>
Longitude:	_____	End: <u>8/22/18</u>	<u>10:10</u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT SW STORAGE ROOM. OF RESIDENCE.

CANISTER ID: R2214

REGULATOR ID: A0298789-7

PRESSURE: START: -50 "Hg

STOP: +6 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 8 QC Code: _____ Matrix: Air Tag ID: 7917-8-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 8/21/18 10:48
Longitude: _____ End: 8/22/18 10:09

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

WEST SIDE OF RESIDENCE.

CANISTER ID: 3024

REGULATOR ID: A0299486-5

PRESSURE: START: -29 "Hg

STOP: -.5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 9 QC Code: _____ Matrix: Air Tag ID: 7917-9-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/21/18	11:42
Longitude:	_____	End: 8/22/18	11:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) FIRST FLOOR LIVING ROOM.

CANISTER ID: 3032

REGULATOR ID: A0334387-3

PRESSURE: START: -29.5 "Hg"
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 10 QC Code: _____ Matrix: Air Tag ID: 7917-10-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

SUB-SLAD

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/21/18	11:45
Longitude:	_____	End: 8/22/18	11:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) NE CORNER OF BASEMENT IN STORAGE ROOM.

CANISTER ID: 3025

REGULATOR ID: 128 697 - 727 3195

PRESSURE: START: - 28.5 "Hg
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 11 QC Code: _____ Matrix: Air Tag ID: 7917-11-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 8/21/18 End: 8/22/18
Longitude: _____ _____ _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM - FIRST FLOOR

CANISTER ID: 4562

REGULATOR ID: A0271055-9

PRESSURE: START: - 29.5 "Hg
STOP: - 4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 12 QC Code: _____ Matrix: Air Tag ID: 7917-12-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - Sub-Slab

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	12:59
Longitude:		End: 8/22/18	12:32

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT STORAGE AREA.

CANISTER ID: 3030

REGULATOR ID: A0271055-8

PRESSURE: START: -29 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 13 QC Code: _____ Matrix: Air Tag ID: 7917-13-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start:	8/21/18 16:14
Longitude:	_____	End:	8/22/18 16:09

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

FIRST FLOOR LIVING ROOM

CANISTER ID: R0486

REGULATOR ID: A0334866-1

PRESSURE: START: - 29 "Hg
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 14 QC Code: _____ Matrix: Air Tag ID: 7917-14-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

- SUB-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/21/18	16:13
Longitude:	_____	End: 8/22/18	16:08

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LAUNDRY ROOM.

CANISTER ID: 4559

REGULATOR ID: A0334874-8

PRESSURE: START: -29.5 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 15 QC Code: _____ Matrix: Air Tag ID: 7917-15-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AVE

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		8/21/18	16:39
Longitude:		End: 8/22/18	16:22

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVINGROOM - FIRST FLOOR

CANISTER ID: L5203

REGULATOR ID: A0283642-1

PRESSURE: START: -29 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 16 QC Code: _____ Matrix: Air Tag ID: 7917-16-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/21/18	16:30
Longitude:	_____	End: 8/22/18	16:21

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT

CANISTER ID: 4056

REGULATOR ID: A0106061-5

PRESSURE: START: -27 "Hg

STOP: -3 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 17 QC Code: _____ Matrix: Air Tag ID: 7917-17-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **(b) (6)** INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: <u>8/22/18</u>	<u>08:19</u>
Longitude:	_____	End: <u>8/23/18</u>	<u>08:02</u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM

CANISTER ID: 4560

REGULATOR ID: A0298796-10

PRESSURE: START: - 30 "Hg

STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 18 QC Code: _____ Matrix: Air Tag ID: 7917-18-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) Sub-Site: SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start:	8/22/18 : 08:18
Longitude:	_____	End:	8/23/18 : 09:01

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT CLOSET

CANISTER ID: 14977

REGULATOR ID: A0334367-4

PRESSURE: START: ~29.5 "Hg
STOP: ~4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 19 QC Code: _____ Matrix: Air Tag ID: 7917-19-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: _____ Sample Collection: Start: 8/22/18 08:20
Longitude: _____ End: 8/23/18 08:03

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BACK PATIO

CANISTER ID: 3007

REGULATOR ID: A0283641-7

PRESSURE: START: -30 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 20 QC Code: _____ Matrix: Air Tag ID: 7917-20-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	08:54
Longitude:		End: 8/23/18	08:21

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LIVINGROOM

CANISTER ID: L5184

REGULATOR ID: A0299486-2

PRESSURE: START: -29.5 " Hg

STOP: -6 " Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 21 QC Code: _____ Matrix: Air Tag ID: 7917-21-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	10:28
Longitude:		End: 8/23/18	10:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LIVING ROOM.

CANISTER ID: 4571

REGULATOR ID: 7342924

PRESSURE: START: -30 "Hg

STOP: - 8 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 22 QC Code: _____ Matrix: Air Tag ID: 7917-22-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/22/18	11:00
Longitude:	_____	End: 8/23/18	10:35

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

1ST FLOOR LIVING ROOM

CANISTER ID: 65191

REGULATOR ID: A0333292-6

PRESSURE: START: -30 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 23 QC Code: _____ Matrix: Air Tag ID: 7917-23-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) Sub-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/22/18	10:59
Longitude:	_____	End: 8/23/18	10:35

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT STORAGE ROOM.

CANISTER ID: 4569

REGULATOR ID: A033 4874-5

PRESSURE: START: ~30 "Hg

STOP: ~4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 24 QC Code: _____ Matrix: Air Tag ID: 7917-24-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	11:04
Longitude:		End: 8/23/18	10:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

WEST SIDE OF HOUSE.

CANISTER ID: LS195

REGULATOR ID: A0289195-1

PRESSURE: START: -30 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 25 QC Code: _____ Matrix: Air Tag ID: 7917-25-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/22/18	12:57
Longitude:	_____	End: 8/23/18	12:12

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM - FIRST FLOOR

CANISTER ID: 65182

REGULATOR ID: A0298796-4

PRESSURE: START: -30 "Hg
STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 26 QC Code: _____ Matrix: Air Tag ID: 7917-26-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

Sub-Slab

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Start: 8/22/18 12:56

Longitude: _____ End: 8/23/18 12:11

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT - UNDER STAIRS

CANISTER ID: LS193

REGULATOR ID: A0334394-3

PRESSURE: START: ~ 30 "Hg

STOP: ~ 6 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 27 QC Code: _____ Matrix: Air Tag ID: 7917-27-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 0/22/10	15:10
Longitude:	_____	End: 0/23/10	14:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM. MAIN FLOOR.

CANISTER ID: L5110

REGULATOR ID: A0334388-4

PRESSURE: START: -30²⁷" Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 28 QC Code: _____ Matrix: Air Tag ID: 7917-28-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **(b) (6)** Sub-SLAB

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 8/22/18 End: 8/23/18
Longitude: _____ _____ :15:10 _____ :14:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT

CANISTER ID: 3017

REGULATOR ID: A0295815-3

PRESSURE: START: ~30 "Hg

STOP: ~4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 29 QC Code: _____ Matrix: Air Tag ID: 7917-29-FB

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: TRIP BLANK SAMPLE

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____
Latitude: _____ Sample Collection: Start: 8/23/18 15:00
Longitude: _____ End: / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Canister ID: 3031

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 101 QC Code: _____ Matrix: Water Tag ID: 7917-101-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: _____ Sample Collection: Start: 8/23/18 11:10
Longitude: _____ End: _____ :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
0 ✓- 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
✓- 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
✓- 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
✓- 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
✓- 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
✓- 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
✓- 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A) MS/MSD COLLECTED.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 102 QC Code: _____ Matrix: Water Tag ID: 7917-102-FB

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: FIELD BLANK SAMPLE

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date _____ Time(24 hr) _____
Latitude: _____ Sample Collection: Start: 8/23/18 12:30
Longitude: _____ End: / / :_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
X - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 **Sample Number:** 104 **QC Code:** FB **Matrix:** Water **Tag ID:** 7917-104-FB

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane **State:** Iowa
 City: Bettendorf
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: Water LDL VOA/TPH VOA (GRO) Trip Blank

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____		Sample Collection: Start: <u>8/23/18</u>	<u>12:45</u>
Longitude: _____		End: <u> / / </u>	<u> : </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

Prepared by the LTAB.

ONLY 3 - 40mL VOAS PROVIDED
FOR TRIP BLANK.

Sample Collected By: TT

APPENDIX F
CHAIN-OF-CUSTODY RECORDS

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print) TOPP DAVIS		NAME OF SURVEY OR ACTIVITY TANGLEFOOT LANE SIRA					DATE OF COLLECTION 445 10 2016 DAY MONTH YEAR		SHEET 1 of 1	
CONTENTS OF SHIPMENT										
SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA			RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	CUBITAINER	1-L POLY BOTTLE	500Z. GLASS BOTTLE	VIAL SET (4)	VOA SET (2 VIALS EA)	Water	soil	sediment		
NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
Z219-201			1	1	X					
-202		1	1	1	X					
-203	2	12	3	3	X					
-204	2	4	1	1	X					
-205	2	1	1	1	X					
↓ -225-FB			1	1	X					
(b) (4)										
ASR										
COMPLETED 10.22.2016										
DESCRIPTION OF SHIPMENT					MODE OF SHIPMENT					
PIECE(S) CONSISTING OF _____ BOX(ES)					<input checked="" type="checkbox"/> COMMERCIAL CARRIER: FED EX - PRIORITY OVERNIGHT <input type="checkbox"/> COURIER <input type="checkbox"/> SAMPLER CONVEYED					
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER _____ STAIN					(SHIPPING DOCUMENT NUMBER)					

PERSONNEL CUSTODY RECORD

PERSONNEL CUSTODY RECORD		RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
(b) (4)			10-5-16	1700	<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
<input checked="" type="checkbox"/> SEALED						REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY		DATE	TIME	RECEIVED BY		REASON FOR CHANGE OF CUSTODY
				<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED		
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED						REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY		DATE	TIME	RECEIVED BY		REASON FOR CHANGE OF CUSTODY
				<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED		
<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED						REASON FOR CHANGE OF CUSTODY

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

(b) (4)

10-6-2016
COMPLETE

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<input type="text"/> PIECE(S) CONSISTING OF <input type="text"/> BOX(ES)	<input checked="" type="checkbox"/> COMMERCIAL CARRIER: <u>FEDEX-PRIORITY OVERNIGHT</u>
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER <input type="text"/> <u>5 TOTAL</u>	<input type="checkbox"/> COURIER <input type="checkbox"/> SAMPLER CONVEYED (SHIPPING DOCUMENT NUMBER) <input type="text"/>

PERSONNEL CUSTODY RECORD

PERSONNEL CUSTODY RECORD		DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
(b) (4)		10-6-2016	1700	<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
<input checked="" type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY		DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY		DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY				DATE OF COLLECTION	SHEET
TODD DAVIS	TANGLEFOOT LANE SIRA				4-7 10 2016	1 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	Summa CUBITAINER	BOTTLE	GASS BOTTLE	VOA SET(4) BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	
NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
7219-1	1								X	
-2	1								X	
-3	1								X	
-4	1								X	
-5	1								X	
-6	1								X	
-7	1								X	
-8	1								X	
-9	1								X	
-10	1								X	
-11	1								X	
-12	1								X	
-13	1								X	
-18-FB	1								X	
-101	4			1	1	X				
-102	4			1	1	X				
-103	4			1	1	X				
-104	4			1	1	X				
-105	4					X				
-106	4					X				
-107	4					X				
-108	4					X				
-109	4					X				
-110	4					X				

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<input checked="" type="checkbox"/> PIECE(S) CONSISTING OF <u>4</u> BOX(ES)	<input type="checkbox"/> COMMERCIAL CARRIER:
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER <u>7</u>	<input type="checkbox"/> COURIER
	<input checked="" type="checkbox"/> SAMPLER CONVEYED
	(SHIPPING DOCUMENT NUMBER)

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
(b) (4)	10-11-16	10:45	<i>Barry W. Evans</i> SEALED UNSEALED	<i>Recd @ EPA</i>
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION	SHEET
TODD DAVIS	TANGLEFOOT LANE SIRAI	4-7 10 2016	2 of 2

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS					SAMPLED MEDIA			RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	802 GLASS SUBCONTAINER	802 GLASS BOTTLE	1L POLY BOTTLE	VOA SET(4) BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	
NUMBERS OF CONTAINERS PER SAMPLE NUMBER									
7219-111		4				X			
-211	4		2	1	1	X			
-212	4		2	1	1	X			
-213	4		2	1	1	X			
-214	4		2	1	1	X			
-215	4		2	1	1	X			
-216	4		2	1	1	X			
ASR									
(b) (4)									
COMPLETE 10-11-2016									

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<input checked="" type="checkbox"/> PIECE(S) CONSISTING OF <u>4</u> BOX(ES)	<input type="checkbox"/> COMMERCIAL CARRIER: _____
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER <u>7</u>	<input type="checkbox"/> COURIER _____
	<input checked="" type="checkbox"/> SAMPLER CONVEYED _____
	(SHIPPING DOCUMENT NUMBER)

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
(b) (4)	10-11-16	10:45	<i>Barry W. Evans</i>	<i>Recd @ EPA</i>
<input type="checkbox"/> SEALED	UNSEALED <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELI	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	UNSEALED <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
<input type="checkbox"/> SEALED	UNSEALED <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
TODD DAVIS	TANGLEFOOT LANE SIRA	3 19-22 2018 MONTH DAY YEAR	1 of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	1 L PLASTIC BOTTLE	1/2 PINT BOTTLE	BOTTLE	BOTTLE	WATER	SOLID	HAZ WASTE	AIR	
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER								
7782-1		1						X	
-2		1						X	
-3		1						X	
-4		1						X	
-5		1						X	
-6		1						X	
-7		1						X	
-8		1						X	
-9		1						X	
-10		1						X	
-11		1						X	
-12		1						X	
-13		1						X	
-14		1						X	
-15		1						X	
-16		1						X	
-17		1						X	
-18		1						X	
-19		1						X	
-20		1						X	
-21		1						X	
-22		1						X	
-23		1						X	
-24		1						X	

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
<input checked="" type="checkbox"/> CONTAINER(S) CONSISTING OF 7 CRATE(S)	COMMERCIAL CARRIER _____
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER 9.	<input checked="" type="checkbox"/> SAMPLER CONVEYED _____ (SHIPPING AIRBILL NUMBER) _____

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (PM/SAMPLER) <input checked="" type="checkbox"/> SEALED	DATE 3-23-18	TIME 10:48	RECEIVED BY <i>Mitch Ralby</i>	DATE 3/23/18	TIME 10:48	REASON FOR CHANGE OF CUSTODY <i>Analyze</i>
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
MELINDA LUETKE	TANGLEFOOT LANE SIRA	8 21-23 2010 MONTH DAY YEAR	1 of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	1L PLASTIC BOTTLE	1 SHAMMA BOTTLE	BOTTLE	VOA SET (3 VIALS EA)	WATER	SOLID	HAZ WASTE	AIR	
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER							OTHER	
7917- 1		1					X		
- 2		1					X		
- 3		1					X		
- 4		1					X		
- 5		1					X		
- 6		1					X		
- 7		1					X		
- 8		1					X		
- 9		1					X		
- 10		1					X		
- 11		1					X		
- 12		1					X		
- 13		1					X		
- 14		1					X		
- 15		1					X		
- 16		1					X		
- 17		1					X		
- 18		1					X		
- 19		1					X		
- 20		1					X		
- 21		1					X		
- 22		1					X		
- 23		1					X		
- 24		1					X		

DESCRIPTION OF SHIPMENT				MODE OF SHIPMENT			
<input checked="" type="checkbox"/> CONTAINER(S) CONSISTING OF <u>7</u> CRATE(S)				COMMERCIAL CARRIER _____			
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER <u>2 TOTAL</u>				<input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING AIRBILL NUMBER)			

PERSONNEL CUSTODY RECORD

(b) (4)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
RELI	SEALED	8-24-18	1020	SEALED UNSEALED	8/24/18	1020	A Analysis
RELI	SEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED			SEALED UNSEALED			
RELINQUISHED BY (PM/SAMPLER)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED			SEALED UNSEALED			
RELINQUISHED BY (PM/SAMPLER)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED			SEALED UNSEALED			

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
MELINDA LUETKE	TANGLEFOOT LANE SIRA	8 21-23 2018	2 of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	1L PLASTIC BOTTLE	1 TUNNA BOTTLE	200Z GLASS BOTTLE	1 VO A VIAL BOTTLE	VOA SET (3 VIALS EA)	WATER	SOLID	HAZ WASTE	AIR	
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER									
-7917 - 25		1						X		
- 26		1						X		
- 27		1						X		
- 28		1						X		
-29-FB		1						X		
-101	2		4	1	96	X				
-102-FB	2		2	1	2	X				
✓ -104-FB					1	X				
<i>ASR COMPLETE</i>										
(b) (4)										
<i>8-24-2018</i>										

DESCRIPTION OF SHIPMENT

MODE OF SHIPMENT

- CONTAINER(S) CONSISTING OF 7 CRATE(S) COMMERCIAL CARRIER _____
- ICE CHEST(S): OTHER 2 TOTAL SAMPLER CONVEYED (SHIPPING AIRBILL NUMBER) _____

PERSONNEL CUSTODY RECORD

RECEIVED BY (PM/SAMPLER) <input checked="" type="checkbox"/> SEALED	DATE <u>8-24-18</u>	TIME <u>10:28</u>	RECEIVED BY <u>Melinda Luetke</u> <input checked="" type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE <u>8-24-18</u>	TIME <u>10:28</u>	REASON FOR CHANGE OF CUSTODY <u>Analyze</u>
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PM/SAMPLER) <input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY

APPENDIX G
ANALYTICAL DATA FROM EPA REGION 7 LABORATORY

United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101

Date: 11/28/2016

Subject: Transmittal of Sample Analysis Results for ASR #: 7219

Project ID: THDB7C7

Project Description: Tanglefoot Lane

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch, Environmental Sciences & Technology Division

To: Todd Davis
SUPR/AERR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Todd Davis

Org: SUPR/AERR

Phone: 913-551-7749

Project ID: THDB7C7

Project Desc: Tanglefoot Lane

Location: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Purpose: Site Characterization

GPRA PRC: 303DD2

Site Investigation (SI)/Removal Assessment (RA) sampling.

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

Units: Specific units in which results are reported.

__ = Field Sample

ug/kg = Micrograms per Kilogram

FB = Field Blank

mg/kg = Milligrams per Kilogram

mg/L = Milligrams per Liter

ug/m³ = Micrograms per Cubic Meter

ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

R = The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 7219

Sample Information Summary

11/28/2016

Project ID: THDB7C7

Project Desc: Tanglefoot Lane

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - __		Air	DPT-1 (background location, 4-5' bgs)		10/04/2016	14:45			10/11/2016
2 - __		Air	DPT-2 (4-5' bgs)		10/04/2016	16:20			10/11/2016
3 - __		Air	DPT-3 (4-5' bgs)		10/05/2016	07:25			10/11/2016
4 - __		Air	DPT-4 (4-5' bgs)		10/05/2016	08:45			10/11/2016
5 - __		Air	DPT-5 (4-5' bgs)		10/05/2016	11:50			10/11/2016
6 - __		Air	DPT-5 (4-5' bgs)		10/05/2016	13:40			10/11/2016
7 - __		Air	DPT-7 (4-5' bgs)		10/05/2016	15:25			10/11/2016
8 - __		Air	DPT-8 (4-5' bgs)		10/05/2016	17:00			10/11/2016
9 - __		Air	DPT-9 (4-5' bgs)		10/05/2016	17:52			10/11/2016
10 - __		Air	DPT-10 (4-5' bgs)		10/06/2016	08:40			10/11/2016
11 - __		Air	DPT-11 (4-5' bgs)		10/06/2016	10:35			10/11/2016
12 - __		Air	DPT-13 (4-5' bgs)		10/06/2016	13:42			10/11/2016
13 - __		Air	DPT-15 (4-5' bgs)		10/07/2016	08:00			10/11/2016
18 - FB		Air	Air Field Blank sample		10/07/2016	16:45			10/11/2016
101 - __		Solid	SWS-1		10/06/2016	13:00			10/11/2016
102 - __		Solid	SWS-3		10/06/2016	15:40			10/11/2016
103 - __		Solid	SWS-2		10/06/2016	16:40			10/11/2016
104 - __		Solid	SWS-4		10/07/2016	08:20			10/11/2016
105 - __		Solid	SS-1		10/07/2016	10:00			10/11/2016
106 - __		Solid	SS-2		10/07/2016	11:15			10/11/2016
107 - __		Solid	SS-3		10/07/2016	11:32			10/11/2016
108 - __		Solid	SS-4		10/07/2016	11:56			10/11/2016
109 - __		Solid	SS-5		10/07/2016	14:50			10/11/2016
110 - __		Solid	SS-6		10/07/2016	15:23			10/11/2016
111 - __		Solid	SS-7		10/07/2016	15:52			10/11/2016
201 - __		Water	DPT-2 (34-38' bgs)		10/04/2016	17:50			10/07/2016
202 - __		Water	DPT-3 (40-44' bgs)		10/05/2016	08:00			10/07/2016
203 - __		Water	DPT-4 (32-36' bgs)		10/05/2016	09:20			10/07/2016
204 - __		Water	DPT-5 (28-32' bgs)		10/05/2016	12:50			10/07/2016
205 - __		Water	DPT-6 (36-40' bgs)		10/05/2016	14:30			10/07/2016
206 - __		Water	DPT-9 (36-40' bgs)		10/06/2016	07:30			10/07/2016
207 - __		Water	DPT-10 (36-40' bgs)		10/06/2016	09:20			10/11/2016
208 - __		Water	SWS-1		10/06/2016	12:45			10/11/2016
209 - __		Water	SWS-3		10/06/2016	15:30			10/11/2016
210 - __		Water	DPT-14 (28-32' bgs)		10/06/2016	15:50			10/07/2016
211 - __		Water	SWS-2		10/06/2016	16:30			10/11/2016
212 - __		Water	SWS-4		10/07/2016	08:10			10/11/2016
213 - __		Water	DPT-15 (40-44' bgs)		10/07/2016	09:00			10/11/2016
214 - __		Water	SPT-16 (16-20' bgs)		10/07/2016	10:30			10/11/2016
215 - __		Water	DPT-17 (16-20' bgs)		10/07/2016	11:20			10/11/2016
216 - __		Water	Rinsate Blank		10/07/2016	12:18			10/11/2016
225 - FB		Water	Water Trip Blank sample		09/28/2016	14:30			10/07/2016

Project ID: THDB7C7

Project Desc Tanglefoot Lane

Analysis	Comments About Results For This Analysis
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1 VOCs in Air at Ambient Levels by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to EPA Region 7 RLAB Method 3230.4G (see comments)

Samples: 1-__ 2-__ 3-__ 4-__ 5-__ 6-__ 7-__
8-__ 9-__ 10-__ 11-__ 12-__ 13-__ 18-FB

Comments:

Samples 7219-5 7219-7, 7219-9, & 7219-13 required dilutions due to target compound concentrations.

Sample 7219-18FB was received under vacuum and required pressurization to analyze.

1 Herbicides in Soil by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__

Comments:

2,4,5-T was UJ-coded in sample -101 and 2,4-D was UJ-coded in sample -110. These analytes were not found in the samples at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low recoveries of the surrogate analytes. The actual reporting limits for these analytes may be higher than the reported values.

2,4,5-T and 2,4-D were UJ-coded in sample -101. These analytes were not found in the sample at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low recoveries of these analytes in the laboratory matrix spike. The actual reporting limits for these analytes may be higher than the reported values.

1 Mercury in Soil or Sediment

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__

Comments:

1 Metals in Solids by ICP-AES

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Analysis	Comments About Results For This Analysis
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Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__

Comments:

Negative arsenic contamination was found in the preparation and /or calibration blanks. Only samples containing this analyte at a level greater than five times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than five times the contamination in the blank have the result J-coded indicating that the reported values are estimates. Samples affected were: -101, -102, -104, -106, -107, -108, -109, -110, and -111.

Potassium in sample -107 and selenium in samples -101, -102, -103, -104, -105, -106, -107, -108, -109, -110, and -111 were UJ-coded. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are an estimate (UJ-coded) due to negative recoveries of these analytes in the interference check samples (ICS) which were not present in the ICS solution but whose absolute values were greater than the method detection limits (MDL), therefore, a possibility of false negatives exists. The actual reporting limits may be higher than the reported values.

Selenium (66%, 75%-125%) was UJ-coded in sample -101. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

1 Pesticides in Soil by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
108-__ 109-__ 110-__ 111-__

Comments:

DDE was J-coded in samples -102 and -105. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to resolution check outliers.

Endrin Ketone was J-coded in sample -108. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the PE sample. The actual concentration for this analyte may be lower than the reported value.

1 Semi-Volatile Organic Compounds in Soil

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Project ID: THDB7C7

Project Desc Tanglefoot Lane

Analysis	Comments About Results For This Analysis
Samples:	101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__ 108-__ 109-__ 110-__ 111-__
Comments:	Hexachloroethane, Hexachlorocyclopentadiene, 2,4-Dinitrophenol and 4,6-Dinitro-2-Methylphenol were UJ-coded in samples -101 and -105 through -111. 4-Nitrophenol was UJ-coded in samples -105 through -111. These analytes were not found in the samples at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to the continuing calibration checks not meeting accuracy specifications. The actual reporting limits for these analytes may be higher than the reported values. 4-Nitrophenol was J-coded in sample -101. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for this analyte may be higher than the reported value. 1,4-Dioxane was UJ-coded in samples -101, -102, -105, -108, -109 and -111. 4-Chloroaniline, Hexachlorocyclopentadiene and 3,3'-Dichlorobenzidine were UJ-coded in sample -104. 4,6-Dinitro-2-Methylphenol was UJ coded in samples -108, -109 and -110. These analytes were not found in the sample at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low recovery of a surrogate analyte. The actual reporting limits for these analytes may be higher than the reported values. Acenaphthene, 4-Chloro-3-Methylphenol, 2-Chlorophenol, 2,4-Dinitrotoluene, 4-Nitrophenol and Pyrene were J-coded in sample -101. Although the analytes in question have been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recoveries of these analytes in the laboratory matrix spikes. The actual concentration for these analytes may be higher than the reported value. N-Nitro-di-n-Propylamine was UJ-coded in sample -101. This analyte was not found in the sample at or above the reporting limit; however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spikes. The actual reporting limit for this analyte may be higher than the reported value. Pentachlorophenol and Phenol had unacceptable responses in the laboratory matrix spike indicating that it was not possible to obtain valid results for these analytes. Results of 'N/A' were reported with an R-code. The results for these analytes, although below the RL (520 µg/kg), were detected in the sample above the MDL. Pentachlorophenol was reported at 480 µg/kg and Phenol was reported at 500 µg/kg (raw results). Due to the very low recoveries of these analytes in the matrix spike (-2% and -1%, respectively), the results may be above the reporting limits. 4-Chloro-3-Methylphenol, 2-Chlorophenol, 2,4-Dinitrotoluene, 4-Nitrophenol and Pyrene were J-coded in sample -101. Although the analytes in question have been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for these analytes in the laboratory matrix spike and matrix spike duplicate. N-Nitro-di-n-Propylamine was UJ-coded in sample -101. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-

Analysis Comments About Results For This Analysis

coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for this analyte may be higher than the reported value. (Pentachlorophenol and Phenol, previously R-coded due to spike recoveries, would have been UJ-coded as well).

1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__ 105-__ 106-__ 107-__
 108-__ 109-__ 110-__ 111-__

Comments:

ORO was UJ-coded in sample 7219-103. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

ORO was UJ-coded in sample 7219-107. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to poor precision obtained for this analyte in the laboratory matrix spike and matrix spike duplicate. The actual reporting limit for this analyte may be higher than the reported value.

1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__

Comments:

1 Volatile TPH in Soil by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Volatile TPH by GC/MS (see comments)

Basis: Dry

Samples: 101-__ 102-__ 103-__ 104-__

Comments:

(N/A)

1 Herbicides in Water by GC/EC

Project ID: THDB7C7

Project Desc Tanglefoot Lane

Analysis	Comments About Results For This Analysis
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Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 207-__ 208-__ 209-__ 210-__ 211-__
212-__ 213-__ 214-__ 215-__ 216-__

Comments:

1 Mercury - Dissolved, in Water

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 207-__ 208-__ 209-__ 210-__ 211-__
212-__ 213-__ 214-__ 215-__ 216-__

Comments:

1 Mercury in Water

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 207-__ 208-__ 209-__ 210-__ 211-__
212-__ 213-__ 214-__ 215-__ 216-__

Comments:

1 Metals - Dissolved, in Water by ICP/MS

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 207-__ 208-__ 209-__ 210-__ 211-__
212-__ 213-__ 214-__ 215-__ 216-__

Comments:

Slight zinc contamination was found in the preparation and/ or calibration blanks. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: -204, -208, and -211.

1 Metals in Water by ICP/MS

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 207-__ 208-__ 209-__ 210-__ 211-__

Analysis	Comments About Results For This Analysis
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Samples: 212-__ 213-__ 214-__ 215-__ 216-__

Comments:

Selenium was UJ-coded in sample -213. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to high internal standard response. The actual reporting limit for this analyte may be higher than the reported value.

Slight zinc contamination was found in the preparation and/ or calibration blanks. Only samples containing this analyte at a level greater than ten times the contamination level of the blank are reported without being qualified. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that the reporting limit has been raised to the level found in the sample. Samples affected were: -209.

1 Pesticides in Water by GC/EC

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 203-__ 204-__ 206-__ 207-__ 208-__ 209-__ 210-__
211-__ 212-__ 213-__ 214-__ 215-__ 216-__

Comments:

1 Semi-Volatile Organic Compounds in Water

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 202-__ 203-__ 204-__ 205-__ 206-__ 207-__ 208-__
209-__ 210-__ 211-__ 212-__ 213-__ 214-__ 215-__
216-__

Comments:

1,4-Dioxane was UJ-coded in sample -204. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of the surrogate analyte. The actual reporting limit for this analyte may be higher than the reported value.

Hexachlorocyclopentadiene, 2,4,6-Trichlorophenol, 2,4,5-Trichlorophenol, 2,3,4,6-Tetrachlorophenol, Biphenyl, 2-Chloronaphthalene, 2-Nitroanaline, 3-Nitroanaline, 4-Nitroanaline, Dimethylphthalate, Acenaphthylene, Acenaphthene, 2,4-Dinitrophenol, 4-Nitrophenol, Dibenzofuran, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 1,2,4,5-Tetrachlorobenzene, Diethylphthalate, 4-Chlorophenyl-phenylether and Fluorene were UJ-coded in sample -215. These analytes were not found in the sample at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low internal standard response.

bis(2-Chloroisopropyl)ether, Naphthalene, Acenaphthylene, Diethylphthalate,

Analysis	Comments About Results For This Analysis
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Hexachlorobenzene, Phenanthrene, Di-n-butylphthalate, Pyrene, Benzo(a)anthracene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene and Benzo(g,h,i)perylene were biased low and were UJ-coded in samples -202 through -206 and -210. These analytes were not found in the samples at or above the reporting limits; however, the reporting limits are an estimate (UJ-coded) due to low recoveries of these analytes in the PE sample. The actual reporting limits for these analytes may be higher than the reported values.

4-Chloroaniline and Atrazine were not detected in the PE sample. No control limits were given for these analyte, but the amount spiked (80 µg/L and 75 µg/L, respectively) were provided. 4-Chloroaniline and Atrazine had unacceptable responses in the PE sample indicating that it was not possible to obtain valid results for these analytes. Results of 'N/A' were reported with R-codes for all samples.

1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Samples: 203-__ 204-__ 205-__ 206-__ 207-__ 208-__ 209-__
210-__ 211-__ 212-__ 213-__ 214-__ 215-__ 216-__

Comments:

(N/A)

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Contract Lab Program (Out-Source)

Method: CLP Statement of Work

Samples: 201-__ 202-__ 203-__ 204-__ 205-__ 206-__ 207-__
208-__ 209-__ 210-__ 211-__ 212-__ 213-__ 214-__
215-__ 216-__ 225-FB

Comments:

Sample -213 was diluted 1:100 prior to analysis due to high levels of target compounds. Therefore, the reporting limits for this sample was raised by a factor of 100.

1,1-Dichloroethene in sample -214; and 1,1,1-Trichloroethane and m and/or p-Xylene in sample -215 were below the RL in the dilutions of these samples. Therefore, the results for the undiluted analyses were reported for these analytes in these samples and were J-coded. Although the analytes in question have been positively identified in the samples, the quantitation is an estimate (J-coded) due to the reported values exceeding the calibrated range of the instrument.

The pH of sample -201 (5) was above control limits (pH<2). Sample -201 was analyzed 1 day past its 7 day holding time. The results for analytes that were not found at or above the reporting limit were UJ-coded to indicate that the reporting limit is an estimated value. The actual reporting limit may be higher than the reported value.

Benzene, cis-1,2-Dichloroethene and Vinyl Chloride were reported with a J-code indicating that they are estimated values. The actual concentration of some or all analytes may have

Analysis	Comments About Results For This Analysis
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been higher than the reported results.

cis-1,2-Dichloroethene and trans-1,2-Dichloroethene were J-coded in sample -214. Although the analytes in question have been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of a surrogate analyte in this sample. The actual concentration for these analytes may be lower than the reported values.

Benzene, Chlorobenzene and 1,1-Dichloroethene were UJ-coded in sample -203. These analytes were not found in the sample at or above the reporting limit, however, the reporting limits are an estimate (UJ-coded) due to poor precision obtained for these analytes in the laboratory matrix spike and matrix spike duplicate. The actual reporting limits for these analytes may be higher than the reported values.

1,2-Dibromo-3-Chloropropane had an unacceptable response in the PE sample indicating that it was not possible to obtain valid results for this analyte. Results of 'N/A' were reported with R-codes for all samples.

1 Volatile TPH in Water by GC/MS

Lab: RASP Contract Lab (Out-Source)

Method: Similar to Volatile TPH by GC/MS (see comments)

Samples: 201-__ 202-__ 203-__ 204-__ 205-__ 206-__ 207-__
208-__ 209-__ 210-__ 211-__ 212-__ 213-__ 214-__
215-__ 216-__ 225-FB

Comments:

(N/A)

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	45.1	40.4	14.9	39.2
Benzene	ug/m3	2.4	1.92	1.98	1.05
Bromodichloromethane	ug/m3	3.35 U	3.35 U	3.35 U	3.35 U
Bromoform	ug/m3	5.17 U	5.17 U	5.17 U	5.17 U
Bromomethane	ug/m3	1.94 U	1.94 U	1.94 U	1.94 U
2-Butanone	ug/m3	8.87	7.99	1.47 U	10.1
Carbon Disulfide	ug/m3	2.49	1.56 U	1.56 U	3.8
Carbon Tetrachloride	ug/m3	0.41 U	0.44	0.41 U	0.41 U
Chlorobenzene	ug/m3	2.3 U	2.3 U	2.3 U	2.3 U
Chloroethane	ug/m3	1.32 U	1.32 U	1.32 U	1.32 U
Chloroform	ug/m3	2.44 U	2.44 U	36.3	2.44 U
Chloromethane	ug/m3	1.03 U	1.03 U	1.03 U	1.03 U
Dibromochloromethane	ug/m3	4.26 U	4.26 U	4.26 U	4.26 U
1,2-Dibromoethane	ug/m3	3.84 U	3.84 U	3.84 U	3.84 U
1,2-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,3-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,1-Dichloroethane	ug/m3	2.02 U	2.02 U	2.02 U	2.02 U
1,2-Dichloroethane	ug/m3	0.094 U	0.094 U	0.094 U	0.094 U
1,1-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
cis-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
trans-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
1,2-Dichloropropane	ug/m3	2.31 U	2.31 U	2.31 U	2.31 U
cis-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
trans-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
Ethyl Benzene	ug/m3	4.69	2.91	7.81	3.34
Heptane	ug/m3	5.61	2.21	23	2.46
Hexachlorobutadiene	ug/m3	5.33 U	5.33 U	5.33 U	5.33 U
Hexane	ug/m3	5.32	3.42	30.4	3.52
2-Hexanone	ug/m3	2.05 U	2.05 U	2.05 U	2.05 U
Isopropylbenzene	ug/m3	2.46 U	2.46 U	2.46 U	2.46 U
Methylene Chloride	ug/m3	8.7 U	8.7 U	8.7 U	8.7 U
4-Methyl-2-Pentanone	ug/m3	2.05 U	2.05 U	2.05 U	2.05 U
Naphthalene	ug/m3	4.77	2.62 U	2.62 U	2.62 U
Styrene	ug/m3	2.13 U	2.13 U	2.13 U	2.13 U
1,1,2,2-Tetrachloroethane	ug/m3	3.43 U	3.43 U	3.43 U	3.43 U
Tetrachloroethene	ug/m3	0.475	0.41 U	0.41 U	0.475
Toluene	ug/m3	9.42	5.27	13.6	6.06
1,2,4-Trichlorobenzene	ug/m3	3.71 U	3.71 U	3.71 U	3.71 U
1,1,1-Trichloroethane	ug/m3	2.73 U	2.73 U	2.73 U	2.73 U
1,1,2-Trichloroethane	ug/m3	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
1,1,2-Trichlorotrifluoroethane	ug/m3	3.83 U	3.83 U	3.83 U	106
1,2,4-Trimethylbenzene	ug/m3	11.8	8.5	8.89	7.27
1,3,5-Trimethylbenzene	ug/m3	2.9	2.46 U	2.46 U	2.46 U
Vinyl Chloride	ug/m3	0.16 U	0.16 U	0.16 U	0.16 U

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Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
m and/or p-Xylene	ug/m3	17.3	11.9	16.7	12.8
o-Xylene	ug/m3	5.9	4.04	6.21	4.12

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	57.5	15.8	137	46.9
Benzene	ug/m3	2.27	0.543	5.56	0.703
Bromodichloromethane	ug/m3	3.35 U	3.35 U	3.35 U	3.35 U
Bromoform	ug/m3	5.17 U	5.17 U	5.17 U	5.17 U
Bromomethane	ug/m3	1.94 U	1.94 U	1.94 U	1.94 U
2-Butanone	ug/m3	14.9	3.07	31	10.4
Carbon Disulfide	ug/m3	1.56 U	1.56 U	5.01	1.56 U
Carbon Tetrachloride	ug/m3	0.44	0.41 U	0.41 U	0.41 U
Chlorobenzene	ug/m3	2.3 U	2.3 U	2.3 U	2.3 U
Chloroethane	ug/m3	1.32 U	1.32 U	1.32 U	1.32 U
Chloroform	ug/m3	2.44 U	2.49	2.88	10.6
Chloromethane	ug/m3	1.03 U	1.03 U	1.03 U	1.03 U
Dibromochloromethane	ug/m3	4.26 U	4.26 U	4.26 U	4.26 U
1,2-Dibromoethane	ug/m3	3.84 U	3.84 U	3.84 U	3.84 U
1,2-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,3-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,1-Dichloroethane	ug/m3	2.02 U	2.02 U	2.02 U	2.02 U
1,2-Dichloroethane	ug/m3	0.094 U	0.094 U	0.094 U	0.094 U
1,1-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
cis-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
trans-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
1,2-Dichloropropane	ug/m3	2.31 U	2.31 U	2.31 U	2.31 U
cis-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
trans-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
Ethyl Benzene	ug/m3	2.86	2.17 U	14.4	2.34
Heptane	ug/m3	2.58	2.05 U	13.6	2.05 U
Hexachlorobutadiene	ug/m3	5.33 U	5.33 U	5.33 U	5.33 U
Hexane	ug/m3	8.17	14.8	21.5	3.84
2-Hexanone	ug/m3	2.05 U	2.05 U	2.05 U	2.05 U
Isopropylbenzene	ug/m3	2.46 U	2.46 U	2.46 U	2.46 U
Methylene Chloride	ug/m3	19.9	65.3	48.9	8.7 U
4-Methyl-2-Pentanone	ug/m3	2.05 U	2.05 U	2.99	2.05 U
Naphthalene	ug/m3	2.62 U	2.62 U	5.5	2.62 U
Styrene	ug/m3	2.13 U	2.13 U	2.13 U	2.13 U
1,1,2,2-Tetrachloroethane	ug/m3	3.43 U	3.43 U	3.43 U	3.43 U
Tetrachloroethene	ug/m3	0.41 U	1.22	1.15	0.41 U
Toluene	ug/m3	5.76	3.09	27.5	4.52
1,2,4-Trichlorobenzene	ug/m3	3.71 U	3.71 U	3.71 U	3.71 U
1,1,1-Trichloroethane	ug/m3	2.73 U	2.73 U	2.73 U	2.73 U
1,1,2-Trichloroethane	ug/m3	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
1,1,2-Trichlorotrifluoroethane	ug/m3	3.83 U	3.83 U	3.83 U	3.83 U
1,2,4-Trimethylbenzene	ug/m3	6.49	4.86	27.7	5.55
1,3,5-Trimethylbenzene	ug/m3	2.46 U	2.46 U	7.42	2.46 U
Vinyl Chloride	ug/m3	0.16 U	0.16 U	0.16 U	0.16 U

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Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
m and/or p-Xylene	ug/m3	11.4	7.29	54.7	9.33
o-Xylene	ug/m3	3.73	2.52	18.4	3.08

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	59	27.3	54.1	36.2
Benzene	ug/m3	33.7	0.766	1.18	1.63
Bromodichloromethane	ug/m3	3.35 U	3.35 U	3.35 U	3.35 U
Bromoform	ug/m3	5.17 U	5.17 U	5.17 U	5.17 U
Bromomethane	ug/m3	1.94 U	1.94 U	1.94 U	1.94 U
2-Butanone	ug/m3	19.1	6.81	10.5	8.7
Carbon Disulfide	ug/m3	1.56 U	1.56 U	1.56 U	2.46
Carbon Tetrachloride	ug/m3	0.41 U	0.41 U	0.44	0.41 U
Chlorobenzene	ug/m3	2.3 U	2.3 U	2.3 U	2.3 U
Chloroethane	ug/m3	1.32 U	1.32 U	1.32 U	1.32 U
Chloroform	ug/m3	2.44 U	2.44 U	2.44 U	2.44 U
Chloromethane	ug/m3	1.03 U	1.03 U	1.03 U	1.03 U
Dibromochloromethane	ug/m3	4.26 U	4.26 U	4.26 U	4.26 U
1,2-Dibromoethane	ug/m3	3.84 U	3.84 U	3.84 U	3.84 U
1,2-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,3-Dichlorobenzene	ug/m3	3 U	3 U	3 U	3 U
1,1-Dichloroethane	ug/m3	2.02 U	2.02 U	2.02 U	2.02 U
1,2-Dichloroethane	ug/m3	0.094 U	0.094 U	0.094 U	0.094 U
1,1-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
cis-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
trans-1,2-Dichloroethene	ug/m3	1.98 U	1.98 U	1.98 U	1.98 U
1,2-Dichloropropane	ug/m3	2.31 U	2.31 U	2.31 U	2.31 U
cis-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
trans-1,3-Dichloropropene	ug/m3	2.27 U	2.27 U	2.27 U	2.27 U
Ethyl Benzene	ug/m3	5.16	2.17 U	2.3	4.34
Heptane	ug/m3	22.3	2.09	2.25	4.67
Hexachlorobutadiene	ug/m3	5.33 U	5.33 U	5.33 U	5.33 U
Hexane	ug/m3	71.9	2.68	3.31	8.07
2-Hexanone	ug/m3	2.05 U	2.05 U	2.05 U	2.05 U
Isopropylbenzene	ug/m3	2.46 U	2.46 U	2.46 U	2.46 U
Methylene Chloride	ug/m3	8.7 U	8.7 U	8.7 U	8.7 U
4-Methyl-2-Pentanone	ug/m3	2.05 U	2.05 U	2.05 U	2.05 U
Naphthalene	ug/m3	2.62 U	2.62 U	2.62 U	2.72
Styrene	ug/m3	2.13 U	2.13 U	2.13 U	2.13 U
1,1,2,2-Tetrachloroethane	ug/m3	3.43 U	3.43 U	3.43 U	3.43 U
Tetrachloroethene	ug/m3	0.41 U	0.41 U	0.41 U	0.746
Toluene	ug/m3	19.6	3.47	5.2	7.16
1,2,4-Trichlorobenzene	ug/m3	3.71 U	3.71 U	3.71 U	3.71 U
1,1,1-Trichloroethane	ug/m3	2.73 U	2.73 U	2.73 U	2.73 U
1,1,2-Trichloroethane	ug/m3	0.15 U	0.15 U	0.15 U	0.15 U
Trichloroethene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
1,1,2-Trichlorotrifluoroethane	ug/m3	3.83 U	3.83 U	3.83 U	3.83 U
1,2,4-Trimethylbenzene	ug/m3	13.1	3.88	5.06	11.2
1,3,5-Trimethylbenzene	ug/m3	3.29	2.46 U	2.46 U	2.7
Vinyl Chloride	ug/m3	0.16 U	0.16 U	0.16 U	0.16 U

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Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
m and/or p-Xylene	ug/m3	20.7	7.16	9.03	17.4
o-Xylene	ug/m3	6.86	2.34	2.99	5.95

Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
1 VOCs in Air at Ambient Levels by GC/MS					
Acetone	ug/m3	14300 U	5.95 U		
Benzene	ug/m3	744 U	0.31 U		
Bromodichloromethane	ug/m3	8040 U	3.35 U		
Bromoform	ug/m3	12400 U	5.17 U		
Bromomethane	ug/m3	4660 U	1.94 U		
2-Butanone	ug/m3	3530 U	1.47 U		
Carbon Disulfide	ug/m3	3740 U	1.56 U		
Carbon Tetrachloride	ug/m3	984 U	0.41 U		
Chlorobenzene	ug/m3	5520 U	2.3 U		
Chloroethane	ug/m3	3170 U	1.32 U		
Chloroform	ug/m3	5860 U	2.44 U		
Chloromethane	ug/m3	2470 U	1.03 U		
Dibromochloromethane	ug/m3	10200 U	4.26 U		
1,2-Dibromoethane	ug/m3	9220 U	3.84 U		
1,2-Dichlorobenzene	ug/m3	7200 U	3 U		
1,3-Dichlorobenzene	ug/m3	7200 U	3 U		
1,1-Dichloroethane	ug/m3	4850 U	2.02 U		
1,2-Dichloroethane	ug/m3	226 U	0.094 U		
1,1-Dichloroethene	ug/m3	6660	1.98 U		
cis-1,2-Dichloroethene	ug/m3	22100	1.98 U		
trans-1,2-Dichloroethene	ug/m3	4750 U	1.98 U		
1,2-Dichloropropane	ug/m3	5540 U	2.31 U		
cis-1,3-Dichloropropene	ug/m3	5450 U	2.27 U		
trans-1,3-Dichloropropene	ug/m3	5450 U	2.27 U		
Ethyl Benzene	ug/m3	5210 U	2.17 U		
Heptane	ug/m3	4920 U	2.05 U		
Hexachlorobutadiene	ug/m3	12800 U	5.33 U		
Hexane	ug/m3	4220 U	3.24		
2-Hexanone	ug/m3	4920 U	2.05 U		
Isopropylbenzene	ug/m3	5900 U	2.46 U		
Methylene Chloride	ug/m3	20900 U	8.7 U		
4-Methyl-2-Pentanone	ug/m3	4920 U	2.05 U		
Naphthalene	ug/m3	6290 U	2.62 U		
Styrene	ug/m3	5110 U	2.13 U		
1,1,2,2-Tetrachloroethane	ug/m3	8230 U	3.43 U		
Tetrachloroethene	ug/m3	34200	0.41 U		
Toluene	ug/m3	4510 U	1.88 U		
1,2,4-Trichlorobenzene	ug/m3	8900 U	3.71 U		
1,1,1-Trichloroethane	ug/m3	538000	4.2		
1,1,2-Trichloroethane	ug/m3	360 U	0.15 U		
Trichloroethene	ug/m3	1080000	4.67		
1,1,2-Trichlorotrifluoroethane	ug/m3	14900	3.83 U		
1,2,4-Trimethylbenzene	ug/m3	5900 U	2.46 U		
1,3,5-Trimethylbenzene	ug/m3	5900 U	2.46 U		
Vinyl Chloride	ug/m3	384 U	0.16 U		

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Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
m and/or p-Xylene	ug/m3	10400 U	4.34 U		
o-Xylene	ug/m3	5210 U	2.17 U		
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg		52 UJ	54 U	
2,4-D	ug/kg		52 UJ	54 U	
1 Mercury in Soil or Sediment					
Mercury	mg/kg		0.15 U	0.15 U	
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg		8390	7690	
Antimony	mg/kg		6.7 U	6.9 U	
Arsenic	mg/kg		4.6 J	4.0 J	
Barium	mg/kg		116	107	
Beryllium	mg/kg		0.64	0.60	
Cadmium	mg/kg		0.86	0.69	
Calcium	mg/kg		12700	7870	
Chromium	mg/kg		12.7	11.4	
Cobalt	mg/kg		7.8	7.1	
Copper	mg/kg		16.9	13.8	
Iron	mg/kg		17300	14500	
Lead	mg/kg		13.1	11.8	
Magnesium	mg/kg		5260	3610	
Manganese	mg/kg		648	372	
Nickel	mg/kg		17.3	15.8	
Potassium	mg/kg		697	615	
Selenium	mg/kg		3.9 UJ	4.0 UJ	
Silver	mg/kg		1.1 U	1.2 U	
Sodium	mg/kg		561 U	576 U	
Thallium	mg/kg		2.8 U	2.9 U	
Vanadium	mg/kg		24.0	23.0	
Zinc	mg/kg		52.7	40.4	
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg		2.7 U	2.7 U	
Aroclor 1016	ug/kg		52 U	53 U	
Aroclor 1221	ug/kg		52 U	53 U	
Aroclor 1232	ug/kg		52 U	53 U	
Aroclor 1242	ug/kg		52 U	53 U	
Aroclor 1248	ug/kg		52 U	53 U	
Aroclor 1254	ug/kg		52 U	53 U	
Aroclor 1260	ug/kg		52 U	53 U	
Aroclor 1262	ug/kg		52 U	53 U	
Aroclor 1268	ug/kg		52 U	53 U	
A-BHC	ug/kg		2.7 U	2.7 U	
B-BHC	ug/kg		2.7 U	6.0	
D-BHC	ug/kg		2.7 U	2.7 U	
G-BHC	ug/kg		2.7 U	2.7 U	

Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
cis-Chlordane	ug/kg			2.7 U	2.7 U
trans-Chlordane	ug/kg			2.7 U	2.7 U
p,p'-DDD	ug/kg			5.2 U	5.3 U
p,p'-DDE	ug/kg			5.2 U	9.1 J
p,p'-DDT	ug/kg			5.2 U	5.3 U
Dieldrin	ug/kg			5.2 U	5.3 U
Endosulfan I	ug/kg			2.7 U	2.7 U
Endosulfan II	ug/kg			5.2 U	5.3 U
Endosulfan Sulfate	ug/kg			5.2 U	5.3 U
Endrin	ug/kg			5.2 U	5.3 U
Endrin Aldehyde	ug/kg			5.2 U	6.4
Endrin Ketone	ug/kg			5.2 U	5.3 U
Heptachlor	ug/kg			2.7 U	2.7 U
Heptachlor Epoxide	ug/kg			2.7 U	2.7 U
p,p'-Methoxychlor	ug/kg			27 U	27 U
Toxaphene	ug/kg			270 U	270 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg			660 J	270 U
Acenaphthylene	ug/kg			260 U	270 U
Acetophenone	ug/kg			520 U	530 U
Anthracene	ug/kg			260 U	270 U
Atrazine	ug/kg			520 U	530 U
Benzaldehyde	ug/kg			520 U	530 U
Benzo(a)anthracene	ug/kg			260 U	270 U
Benzo(a)pyrene	ug/kg			260 U	270 U
Benzo(b)fluoranthene	ug/kg			390	270 U
Benzo(g,h,i)perylene	ug/kg			260 U	270 U
Benzo(k)fluoranthene	ug/kg			260 U	270 U
Biphenyl	ug/kg			260 U	270 U
bis(2-Chloroethoxy)methane	ug/kg			260 U	270 U
bis(2-Chloroethyl)ether	ug/kg			520 U	530 U
bis(2-Chloroisopropyl)ether	ug/kg			520 U	530 U
bis(2-Ethylhexyl)phthalate	ug/kg			260 U	270 U
4-Bromophenyl-phenylether	ug/kg			260 U	270 U
Butylbenzylphthalate	ug/kg			260 U	270 U
Caprolactam	ug/kg			520 U	530 U
Carbazole	ug/kg			520 U	530 U
4-Chloro-3-methylphenol	ug/kg			660 J	270 U
4-Chloroaniline	ug/kg			520 U	530 U
2-Chloronaphthalene	ug/kg			260 U	270 U
2-Chlorophenol	ug/kg			600 J	270 U
4-Chlorophenyl-phenylether	ug/kg			260 U	270 U
Chrysene	ug/kg			260 U	270 U
Di-n-butylphthalate	ug/kg			260 U	270 U
Di-n-octylphthalate	ug/kg			520 U	530 U

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Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
Dibenz(a,h)anthracene	ug/kg		260 U	270 U	
Dibenzofuran	ug/kg		260 U	270 U	
3,3'-Dichlorobenzidine	ug/kg		520 U	530 U	
2,4-Dichlorophenol	ug/kg		260 U	270 U	
Diethylphthalate	ug/kg		260 U	270 U	
2,4-Dimethylphenol	ug/kg		260 U	270 U	
Dimethylphthalate	ug/kg		260 U	270 U	
4,6-Dinitro-2-methylphenol	ug/kg		520 UJ	530 U	
2,4-Dinitrophenol	ug/kg		520 UJ	530 U	
2,4-Dinitrotoluene	ug/kg		610 J	270 U	
2,6-Dinitrotoluene	ug/kg		260 U	270 U	
1,4-Dioxane	ug/kg		100 UJ	110 UJ	
Fluoranthene	ug/kg		520 U	530 U	
Fluorene	ug/kg		260 U	270 U	
Hexachlorobenzene	ug/kg		260 U	270 U	
Hexachlorobutadiene	ug/kg		260 U	270 U	
Hexachlorocyclopentadiene	ug/kg		520 UJ	530 U	
Hexachloroethane	ug/kg		260 UJ	270 U	
Indeno(1,2,3-cd)pyrene	ug/kg		260 U	270 U	
Isophorone	ug/kg		260 U	270 U	
2-Methylnaphthalene	ug/kg		260 U	270 U	
2-Methylphenol	ug/kg		520 U	530 U	
4-Methylphenol	ug/kg		520 U	530 U	
Naphthalene	ug/kg		260 U	270 U	
2-Nitroaniline	ug/kg		260 U	270 U	
3-Nitroaniline	ug/kg		520 U	530 U	
4-Nitroaniline	ug/kg		520 U	530 U	
Nitrobenzene	ug/kg		260 U	270 U	
2-Nitrophenol	ug/kg		260 U	270 U	
4-Nitrophenol	ug/kg		670 J	530 U	
N-nitroso-di-n-propylamine	ug/kg		260 UJ	270 U	
N-nitrosodiphenylamine	ug/kg		260 U	270 U	
Pentachlorophenol	ug/kg		N/A R	530 U	
Phenanthrene	ug/kg		260 U	270 U	
Phenol	ug/kg		N/A R	530 U	
Pyrene	ug/kg		1000 J	270 U	
1,2,4,5-Tetrachlorobenzene	ug/kg		260 U	270 U	
2,4,5-Trichlorophenol	ug/kg		260 U	270 U	
2,4,6-Trichlorophenol	ug/kg		260 U	270 U	
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg		13.6 U	12.3 U	
TPH ORO	mg/kg		138	99.6 U	
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg		39 U	23 U	
Benzene	ug/kg		20 U	12 U	

Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
Bromochloromethane	ug/kg			20 U	12 U
Bromodichloromethane	ug/kg			20 U	12 U
Bromoform	ug/kg			20 U	12 U
Bromomethane	ug/kg			20 U	12 U
2-Butanone	ug/kg		39 U	23 U	
Carbon Disulfide	ug/kg		20 U	12 U	
Carbon Tetrachloride	ug/kg		20 U	12 U	
Chlorobenzene	ug/kg		20 U	12 U	
Chloroethane	ug/kg		20 U	12 U	
Chloroform	ug/kg		20 U	12 U	
Chloromethane	ug/kg		20 U	12 U	
Cyclohexane	ug/kg		20 U	12 U	
1,2-Dibromo-3-Chloropropane	ug/kg		20 U	12 U	
Dibromochloromethane	ug/kg		20 U	12 U	
1,2-Dibromoethane	ug/kg		20 U	12 U	
1,2-Dichlorobenzene	ug/kg		20 U	12 U	
1,3-Dichlorobenzene	ug/kg		20 U	12 U	
1,4-Dichlorobenzene	ug/kg		20 U	12 U	
Dichlorodifluoromethane	ug/kg		20 U	12 U	
1,1-Dichloroethane	ug/kg		20 U	12 U	
1,2-Dichloroethane	ug/kg		20 U	12 U	
1,1-Dichloroethene	ug/kg		20 U	12 U	
cis-1,2-Dichloroethene	ug/kg		20 U	12 U	
trans-1,2-Dichloroethene	ug/kg		20 U	12 U	
1,2-Dichloropropane	ug/kg		20 U	12 U	
cis-1,3-Dichloropropene	ug/kg		20 U	12 U	
trans-1,3-Dichloropropene	ug/kg		20 U	12 U	
Ethyl Benzene	ug/kg		20 U	12 U	
2-Hexanone	ug/kg	39 U	23 U		
Isopropylbenzene	ug/kg		20 U	12 U	
Methyl Acetate	ug/kg		20 U	12 U	
Methyl tert-butyl ether	ug/kg		20 U	12 U	
Methylcyclohexane	ug/kg		20 U	12 U	
Methylene Chloride	ug/kg		20 U	12 U	
4-Methyl-2-Pentanone	ug/kg	39 U	23 U		
Styrene	ug/kg		20 U	12 U	
1,1,2,2-Tetrachloroethane	ug/kg		20 U	12 U	
Tetrachloroethene	ug/kg		20 U	12 U	
Toluene	ug/kg		20 U	12 U	
1,2,3-Trichlorobenzene	ug/kg		20 U	12 U	
1,2,4-Trichlorobenzene	ug/kg		20 U	12 U	
1,1,1-Trichloroethane	ug/kg		20 U	12 U	
1,1,2-Trichloroethane	ug/kg		20 U	12 U	
Trichloroethene	ug/kg		20 U	12 U	
Trichlorofluoromethane	ug/kg		20 U	12 U	

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Project Desc: Tanglefoot Lane

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Analysis/ Analyte	Units	13-__	18-FB	101-__	102-__
1,1,2-Trichlorotrifluoroethane	ug/kg			20 U	12 U
Vinyl Chloride	ug/kg			20 U	12 U
m and/or p-Xylene	ug/kg			20 U	12 U
o-Xylene	ug/kg			20 U	12 U
1 Volatile TPH in Soil by GC/MS					
TPH GRO	mg/kg			3.24 U	2.99 U

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Project ID: THDB7C7

RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	103-__	104-__	105-__	106-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	49 U	46 U	45 U	42 U
2,4-D	ug/kg	49 U	46 U	45 U	42 U
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.14 U	0.14 U	0.74	0.12 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	8380	8160	7580	7100
Antimony	mg/kg	6.4 U	6.2 U	5.9 U	5.2 U
Arsenic	mg/kg	14.6	4.1 J	6.0	4.7 J
Barium	mg/kg	274	118	159	91.4
Beryllium	mg/kg	0.80	0.60	0.58	0.56
Cadmium	mg/kg	1.5	0.63	3.9	0.78
Calcium	mg/kg	5650	7060	4110	6880
Chromium	mg/kg	10.6	20.3	15.1	10.8
Cobalt	mg/kg	15.3	8.7	8.6	7.6
Copper	mg/kg	14.1	13.6	20.3	14.4
Iron	mg/kg	30100	14600	14200	14900
Lead	mg/kg	12.1	11.7	306	25.4
Magnesium	mg/kg	3190	3410	1850	4000
Manganese	mg/kg	2630	379	764	472
Nickel	mg/kg	19.8	16.0	17.2	16.2
Potassium	mg/kg	599	936	1500	728
Selenium	mg/kg	3.8 UJ	3.6 UJ	3.4 UJ	3.0 UJ
Silver	mg/kg	1.3	1.0 U	0.98 U	0.87 U
Sodium	mg/kg	537 U	650	489 U	434 U
Thallium	mg/kg	2.7 U	2.6 U	2.4 U	2.2 U
Vanadium	mg/kg	23.3	25.4	22.5	21.3
Zinc	mg/kg	45.3	39.7	123	49.3
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.6 U	2.3 U	6.1	2.2 U
Aroclor 1016	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1221	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1232	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1242	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1248	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1254	ug/kg	50 U	46 U	560	57
Aroclor 1260	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1262	ug/kg	50 U	46 U	45 U	42 U
Aroclor 1268	ug/kg	50 U	46 U	45 U	42 U
A-BHC	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
B-BHC	ug/kg	2.6 U	2.5	11	3.4
D-BHC	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
G-BHC	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
cis-Chlordane	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
trans-Chlordane	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
p,p'-DDD	ug/kg	5.0 U	4.6 U	17	4.2 U

Analysis/ Analyte	Units	103-__	104-__	105-__	106-__
p,p'-DDE	ug/kg	5.0 U	4.6 U	19 J	4.2 U
p,p'-DDT	ug/kg	5.0 U	4.6 U	21	7.1
Dieldrin	ug/kg	5.0 U	4.6 U	8.7	4.2 U
Endosulfan I	ug/kg	2.6 U	2.3 U	8.4	2.4
Endosulfan II	ug/kg	5.0 U	4.6 U	8.6	4.2 U
Endosulfan Sulfate	ug/kg	5.0 U	4.6 U	4.5 U	4.2 U
Endrin	ug/kg	5.0 U	4.6 U	4.8	4.2 U
Endrin Aldehyde	ug/kg	5.0 U	4.6 U	14	4.2 U
Endrin Ketone	ug/kg	5.0 U	4.6 U	4.5 U	4.2 U
Heptachlor	ug/kg	2.6 U	2.3 U	2.3 U	2.2 U
Heptachlor Epoxide	ug/kg	2.6 U	2.3 U	2.8	2.2 U
p,p'-Methoxychlor	ug/kg	26 U	23 U	23 U	22 U
Toxaphene	ug/kg	260 U	230 U	230 U	220 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	250 U	230 U	230 U	210 U
Acenaphthylene	ug/kg	250 U	230 U	230 U	210 U
Acetophenone	ug/kg	500 U	460 U	450 U	420 U
Anthracene	ug/kg	250 U	230 U	230 U	210 U
Atrazine	ug/kg	500 U	460 U	450 U	420 U
Benzaldehyde	ug/kg	500 U	460 U	450 U	420 U
Benzo(a)anthracene	ug/kg	250 U	280	230 U	210 U
Benzo(a)pyrene	ug/kg	250 U	240	230 U	210 U
Benzo(b)fluoranthene	ug/kg	250 U	420	230 U	210 U
Benzo(g,h,i)perylene	ug/kg	250 U	230 U	230 U	210 U
Benzo(k)fluoranthene	ug/kg	250 U	230 U	230 U	210 U
Biphenyl	ug/kg	250 U	230 U	230 U	210 U
bis(2-Chloroethoxy)methane	ug/kg	250 U	230 U	230 U	210 U
bis(2-Chloroethyl)ether	ug/kg	500 U	460 U	450 U	420 U
bis(2-Chloroisopropyl)ether	ug/kg	500 U	460 U	450 U	420 U
bis(2-Ethylhexyl)phthalate	ug/kg	250 U	230 U	230 U	210 U
4-Bromophenyl-phenylether	ug/kg	250 U	230 U	230 U	210 U
Butylbenzylphthalate	ug/kg	250 U	230 U	230 U	210 U
Caprolactam	ug/kg	500 U	460 U	450 U	420 U
Carbazole	ug/kg	500 U	460 U	450 U	420 U
4-Chloro-3-methylphenol	ug/kg	250 U	230 U	230 U	210 U
4-Chloroaniline	ug/kg	500 U	460 UJ	450 U	420 U
2-Chloronaphthalene	ug/kg	250 U	230 U	230 U	210 U
2-Chlorophenol	ug/kg	250 U	230 U	230 U	210 U
4-Chlorophenyl-phenylether	ug/kg	250 U	230 U	230 U	210 U
Chrysene	ug/kg	250 U	340	230 U	210 U
Di-n-butylphthalate	ug/kg	250 U	230 U	230 U	210 U
Di-n-octylphthalate	ug/kg	500 U	460 U	450 U	420 U
Dibenz(a,h)anthracene	ug/kg	250 U	230 U	230 U	210 U
Dibenzofuran	ug/kg	250 U	230 U	230 U	210 U
3,3'-Dichlorobenzidine	ug/kg	500 U	460 UJ	450 U	420 U

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	103-__	104-__	105-__	106-__
2,4-Dichlorophenol	ug/kg	250 U	230 U	230 U	210 U
Diethylphthalate	ug/kg	250 U	230 U	230 U	210 U
2,4-Dimethylphenol	ug/kg	250 U	230 U	230 U	210 U
Dimethylphthalate	ug/kg	250 U	230 U	230 U	210 U
4,6-Dinitro-2-methylphenol	ug/kg	500 U	460 U	450 UJ	420 UJ
2,4-Dinitrophenol	ug/kg	500 U	460 U	450 UJ	420 UJ
2,4-Dinitrotoluene	ug/kg	250 U	230 U	230 U	210 U
2,6-Dinitrotoluene	ug/kg	250 U	230 U	230 U	210 U
1,4-Dioxane	ug/kg	100 U	92 U	91 UJ	84 U
Fluoranthene	ug/kg	500 U	860	450 U	420 U
Fluorene	ug/kg	250 U	230 U	230 U	210 U
Hexachlorobenzene	ug/kg	250 U	230 U	230 U	210 U
Hexachlorobutadiene	ug/kg	250 U	230 U	230 U	210 U
Hexachlorocyclopentadiene	ug/kg	500 U	460 UJ	450 UJ	420 UJ
Hexachloroethane	ug/kg	250 U	230 U	230 UJ	210 UJ
Indeno(1,2,3-cd)pyrene	ug/kg	250 U	230	230 U	210 U
Isophorone	ug/kg	250 U	230 U	230 U	210 U
2-Methylnaphthalene	ug/kg	250 U	230 U	230 U	210 U
2-Methylphenol	ug/kg	500 U	460 U	450 U	420 U
4-Methylphenol	ug/kg	500 U	460 U	450 U	420 U
Naphthalene	ug/kg	250 U	230 U	230 U	210 U
2-Nitroaniline	ug/kg	250 U	230 U	230 U	210 U
3-Nitroaniline	ug/kg	500 U	460 U	450 U	420 U
4-Nitroaniline	ug/kg	500 U	460 U	450 U	420 U
Nitrobenzene	ug/kg	250 U	230 U	230 U	210 U
2-Nitrophenol	ug/kg	250 U	230 U	230 U	210 U
4-Nitrophenol	ug/kg	500 U	460 U	450 UJ	420 UJ
N-nitroso-di-n-propylamine	ug/kg	250 U	230 U	230 U	210 U
N-nitrosodiphenylamine	ug/kg	250 U	230 U	230 U	210 U
Pentachlorophenol	ug/kg	500 U	460 U	450 U	420 U
Phenanthrene	ug/kg	250 U	620	230 U	210 U
Phenol	ug/kg	500 U	460 U	450 U	420 U
Pyrene	ug/kg	250 U	720	230 U	210 U
1,2,4,5-Tetrachlorobenzene	ug/kg	250 U	230 U	230 U	210 U
2,4,5-Trichlorophenol	ug/kg	250 U	230 U	230 U	210 U
2,4,6-Trichlorophenol	ug/kg	250 U	230 U	230 U	210 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	11.5 U	12.1 U	11.6 U	10.3 U
TPH ORO	mg/kg	92.9 UJ	96.4 U	94.5 U	85 U
1 VOC's in Soil at Low Levels by GC/MS Closed-System Purge-and-Trap					
Acetone	ug/kg	150	78		
Benzene	ug/kg	6.7 U	5.4 U		
Bromochloromethane	ug/kg	6.7 U	5.4 U		
Bromodichloromethane	ug/kg	6.7 U	5.4 U		
Bromoform	ug/kg	6.7 U	5.4 U		

Analysis/ Analyte	Units	103-__	104-__	105-__	106-__
Bromomethane	ug/kg	6.7 U	5.4 U		
2-Butanone	ug/kg	21	20		
Carbon Disulfide	ug/kg	6.7 U	5.4 U		
Carbon Tetrachloride	ug/kg	6.7 U	5.4 U		
Chlorobenzene	ug/kg	6.7 U	5.4 U		
Chloroethane	ug/kg	6.7 U	5.4 U		
Chloroform	ug/kg	6.7 U	5.4 U		
Chloromethane	ug/kg	6.7 U	5.4 U		
Cyclohexane	ug/kg	6.7 U	5.4 U		
1,2-Dibromo-3-Chloropropane	ug/kg	6.7 U	5.4 U		
Dibromochloromethane	ug/kg	6.7 U	5.4 U		
1,2-Dibromoethane	ug/kg	6.7 U	5.4 U		
1,2-Dichlorobenzene	ug/kg	6.7 U	5.4 U		
1,3-Dichlorobenzene	ug/kg	6.7 U	5.4 U		
1,4-Dichlorobenzene	ug/kg	6.7 U	5.4 U		
Dichlorodifluoromethane	ug/kg	6.7 U	5.4 U		
1,1-Dichloroethane	ug/kg	6.7 U	5.4 U		
1,2-Dichloroethane	ug/kg	6.7 U	5.4 U		
1,1-Dichloroethene	ug/kg	6.7 U	5.4 U		
cis-1,2-Dichloroethene	ug/kg	6.7 U	5.4 U		
trans-1,2-Dichloroethene	ug/kg	6.7 U	5.4 U		
1,2-Dichloropropane	ug/kg	6.7 U	5.4 U		
cis-1,3-Dichloropropene	ug/kg	6.7 U	5.4 U		
trans-1,3-Dichloropropene	ug/kg	6.7 U	5.4 U		
Ethyl Benzene	ug/kg	6.7 U	5.4 U		
2-Hexanone	ug/kg	13 U	11 U		
Isopropylbenzene	ug/kg	6.7 U	5.4 U		
Methyl Acetate	ug/kg	6.7 U	5.4 U		
Methyl tert-butyl ether	ug/kg	6.7 U	5.4 U		
Methylcyclohexane	ug/kg	6.7 U	5.4 U		
Methylene Chloride	ug/kg	6.7 U	5.4 U		
4-Methyl-2-Pentanone	ug/kg	13 U	11 U		
Styrene	ug/kg	6.7 U	5.4 U		
1,1,2,2-Tetrachloroethane	ug/kg	6.7 U	5.4 U		
Tetrachloroethene	ug/kg	6.7 U	5.4 U		
Toluene	ug/kg	6.7 U	5.4 U		
1,2,3-Trichlorobenzene	ug/kg	6.7 U	5.4 U		
1,2,4-Trichlorobenzene	ug/kg	6.7 U	5.4 U		
1,1,1-Trichloroethane	ug/kg	6.7 U	5.4 U		
1,1,2-Trichloroethane	ug/kg	6.7 U	5.4 U		
Trichloroethene	ug/kg	6.7 U	5.4 U		
Trichlorofluoromethane	ug/kg	6.7 U	5.4 U		
1,1,2-Trichlorotrifluoroethane	ug/kg	6.7 U	5.4 U		
Vinyl Chloride	ug/kg	6.7 U	5.4 U		
m and/or p-Xylene	ug/kg	6.7 U	5.4 U		

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Analysis/ Analyte	Units	103-__	104-__	105-__	106-__
o-Xylene	ug/kg	6.7 U	5.4 U		
1 Volatile TPH in Soil by GC/MS TPH GRO	mg/kg	3.1 U	3.24 U		

ASR Number: 7219

Project ID: THDB7C7

RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	107-__	108-__	109-__	110-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	38 U	41 U	44 U	46 U
2,4-D	ug/kg	38 U	41 U	44 U	46 UJ
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.11 U	0.16	0.12 U	0.13 U
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	1900	7500	5250	6140
Antimony	mg/kg	5.0 U	5.4 U	6.0 U	6.3 U
Arsenic	mg/kg	1.4 J	3.0 J	3.7 J	4.2 J
Barium	mg/kg	41.5	77.1	110	91.9
Beryllium	mg/kg	0.42 U	0.64	0.50 U	0.52 U
Cadmium	mg/kg	0.78	3.0	0.58	0.65
Calcium	mg/kg	4360	3260	8990	14100
Chromium	mg/kg	13.6	21.0	8.2	9.5
Cobalt	mg/kg	4.8	9.3	5.8	6.5
Copper	mg/kg	19.2	21.8	11.1	12.4
Iron	mg/kg	9880	18800	11300	11900
Lead	mg/kg	75.9	71.1	10.8	11.3
Magnesium	mg/kg	1390	1600	3820	6280
Manganese	mg/kg	165	490	506	458
Nickel	mg/kg	7.5	18.1	12.5	13.8
Potassium	mg/kg	417 UJ	760	678	668
Selenium	mg/kg	2.9 UJ	3.2 UJ	3.5 UJ	3.6 UJ
Silver	mg/kg	0.83 U	0.91 U	0.99 U	1.0 U
Sodium	mg/kg	417 U	453 U	495 U	521 U
Thallium	mg/kg	2.1 U	2.3 U	2.5 U	2.6 U
Vanadium	mg/kg	4.2 U	20.5	17.6	20.4
Zinc	mg/kg	112	72.1	36.6	37.9
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
Aroclor 1016	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1221	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1232	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1242	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1248	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1254	ug/kg	130	300	44 U	46 U
Aroclor 1260	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1262	ug/kg	39 U	41 U	44 U	46 U
Aroclor 1268	ug/kg	39 U	41 U	44 U	46 U
A-BHC	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
B-BHC	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
D-BHC	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
G-BHC	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
cis-Chlordane	ug/kg	2.0	2.3	2.3 U	2.4 U
trans-Chlordane	ug/kg	3.6	7.2	2.3 U	2.4 U
p,p'-DDD	ug/kg	3.9 U	6.4	4.4 U	4.6 U

Analysis/ Analyte	Units	107-__	108-__	109-__	110-__
p,p'-DDE	ug/kg	3.9 U	4.1	4.4 U	4.6 U
p,p'-DDT	ug/kg	8.5	32	4.4 U	4.6 U
Dieldrin	ug/kg	3.9 U	5.4	4.4 U	4.6 U
Endosulfan I	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
Endosulfan II	ug/kg	3.9 U	4.1 U	4.4 U	4.6 U
Endosulfan Sulfate	ug/kg	3.9 U	4.1 U	4.4 U	4.6 U
Endrin	ug/kg	3.9 U	4.1 U	4.4 U	4.6 U
Endrin Aldehyde	ug/kg	6.0	32	4.4 U	4.6 U
Endrin Ketone	ug/kg	3.9 U	5.6 J	4.4 U	4.6 U
Heptachlor	ug/kg	2.0 U	2.1 U	2.3 U	2.4 U
Heptachlor Epoxide	ug/kg	2.0 U	2.1 U	2.3 U	3.0
p,p'-Methoxychlor	ug/kg	20 U	21 U	23 U	24 U
Toxaphene	ug/kg	200 U	210 U	230 U	240 U
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	190 U	200 U	220 U	240 U
Acenaphthylene	ug/kg	190 U	200 U	220 U	240 U
Acetophenone	ug/kg	390 U	410 U	440 U	470 U
Anthracene	ug/kg	190 U	200 U	220 U	240 U
Atrazine	ug/kg	390 U	410 U	440 U	470 U
Benzaldehyde	ug/kg	390 U	410 U	440 U	470 U
Benzo(a)anthracene	ug/kg	190 U	200 U	220 U	240 U
Benzo(a)pyrene	ug/kg	190 U	200 U	220 U	240 U
Benzo(b)fluoranthene	ug/kg	190 U	200 U	230	400
Benzo(g,h,i)perylene	ug/kg	190 U	200 U	220 U	240 U
Benzo(k)fluoranthene	ug/kg	190 U	200 U	220 U	240 U
Biphenyl	ug/kg	190 U	200 U	220 U	240 U
bis(2-Chloroethoxy)methane	ug/kg	190 U	200 U	220 U	240 U
bis(2-Chloroethyl)ether	ug/kg	390 U	410 U	440 U	470 U
bis(2-Chloroisopropyl)ether	ug/kg	390 U	410 U	440 U	470 U
bis(2-Ethylhexyl)phthalate	ug/kg	250	200 U	220 U	240 U
4-Bromophenyl-phenylether	ug/kg	190 U	200 U	220 U	240 U
Butylbenzylphthalate	ug/kg	190 U	200 U	220 U	240 U
Caprolactam	ug/kg	390 U	410 U	440 U	470 U
Carbazole	ug/kg	390 U	410 U	440 U	470 U
4-Chloro-3-methylphenol	ug/kg	190 U	200 U	220 U	240 U
4-Chloroaniline	ug/kg	390 U	410 U	440 U	470 U
2-Chloronaphthalene	ug/kg	190 U	200 U	220 U	240 U
2-Chlorophenol	ug/kg	190 U	200 U	220 U	240 U
4-Chlorophenyl-phenylether	ug/kg	190 U	200 U	220 U	240 U
Chrysene	ug/kg	190 U	200 U	220 U	250
Di-n-butylphthalate	ug/kg	190 U	200 U	220 U	240 U
Di-n-octylphthalate	ug/kg	390 U	410 U	440 U	470 U
Dibenz(a,h)anthracene	ug/kg	190 U	200 U	220 U	240 U
Dibenzofuran	ug/kg	190 U	200 U	220 U	240 U
3,3'-Dichlorobenzidine	ug/kg	390 U	410 U	440 U	470 U

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	107-__	108-__	109-__	110-__
2,4-Dichlorophenol	ug/kg	190 U	200 U	220 U	240 U
Diethylphthalate	ug/kg	190 U	200 U	220 U	240 U
2,4-Dimethylphenol	ug/kg	190 U	200 U	220 U	240 U
Dimethylphthalate	ug/kg	190 U	200 U	220 U	240 U
4,6-Dinitro-2-methylphenol	ug/kg	390 UJ	410 UJ	440 UJ	470 UJ
2,4-Dinitrophenol	ug/kg	390 UJ	410 UJ	440 UJ	470 UJ
2,4-Dinitrotoluene	ug/kg	190 U	200 U	220 U	240 U
2,6-Dinitrotoluene	ug/kg	190 U	200 U	220 U	240 U
1,4-Dioxane	ug/kg	78 U	81 UJ	88 UJ	94 U
Fluoranthene	ug/kg	390 U	410 U	440 U	470
Fluorene	ug/kg	190 U	200 U	220 U	240 U
Hexachlorobenzene	ug/kg	190 U	200 U	220 U	240 U
Hexachlorobutadiene	ug/kg	190 U	200 U	220 U	240 U
Hexachlorocyclopentadiene	ug/kg	390 UJ	410 UJ	440 UJ	470 UJ
Hexachloroethane	ug/kg	190 UJ	200 UJ	220 UJ	240 UJ
Indeno(1,2,3-cd)pyrene	ug/kg	190 U	200 U	220 U	240 U
Isophorone	ug/kg	190 U	200 U	220 U	240 U
2-Methylnaphthalene	ug/kg	190 U	200 U	220 U	240 U
2-Methylphenol	ug/kg	390 U	410 U	440 U	470 U
4-Methylphenol	ug/kg	390 U	410 U	440 U	470 U
Naphthalene	ug/kg	190 U	200 U	220 U	240 U
2-Nitroaniline	ug/kg	190 U	200 U	220 U	240 U
3-Nitroaniline	ug/kg	390 U	410 U	440 U	470 U
4-Nitroaniline	ug/kg	390 U	410 U	440 U	470 U
Nitrobenzene	ug/kg	190 U	200 U	220 U	240 U
2-Nitrophenol	ug/kg	190 U	200 U	220 U	240 U
4-Nitrophenol	ug/kg	390 UJ	410 UJ	440 UJ	470 UJ
N-nitroso-di-n-propylamine	ug/kg	190 U	200 U	220 U	240 U
N-nitrosodiphenylamine	ug/kg	190 U	200 U	220 U	240 U
Pentachlorophenol	ug/kg	390 U	410 U	440 U	470 U
Phenanthrene	ug/kg	190 U	200 U	220 U	240 U
Phenol	ug/kg	390 U	410 U	440 U	470 U
Pyrene	ug/kg	190 U	220	220	380
1,2,4,5-Tetrachlorobenzene	ug/kg	190 U	200 U	220 U	240 U
2,4,5-Trichlorophenol	ug/kg	190 U	200 U	220 U	240 U
2,4,6-Trichlorophenol	ug/kg	190 U	200 U	220 U	240 U
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	10.2 U	25.9	11.7 U	11.2 U
TPH ORO	mg/kg	80.1 UJ	151	93.4 U	89.3 U

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Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
1 Herbicides in Soil by GC/EC					
2,4,5-T	ug/kg	47 U			
2,4-D	ug/kg	47 U			
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.14 U			
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	5900			
Antimony	mg/kg	6.9 U			
Arsenic	mg/kg	3.4 J			
Barium	mg/kg	97.7			
Beryllium	mg/kg	0.57 U			
Cadmium	mg/kg	0.61			
Calcium	mg/kg	12300			
Chromium	mg/kg	9.3			
Cobalt	mg/kg	6.0			
Copper	mg/kg	13.4			
Iron	mg/kg	12000			
Lead	mg/kg	11.0			
Magnesium	mg/kg	5590			
Manganese	mg/kg	435			
Nickel	mg/kg	13.6			
Potassium	mg/kg	1140			
Selenium	mg/kg	4.0 UJ			
Silver	mg/kg	1.2 U			
Sodium	mg/kg	573 U			
Thallium	mg/kg	2.9 U			
Vanadium	mg/kg	19.6			
Zinc	mg/kg	44.2			
1 Pesticides in Soil by GC/EC					
Aldrin	ug/kg	2.4 U			
Aroclor 1016	ug/kg	47 U			
Aroclor 1221	ug/kg	47 U			
Aroclor 1232	ug/kg	47 U			
Aroclor 1242	ug/kg	47 U			
Aroclor 1248	ug/kg	47 U			
Aroclor 1254	ug/kg	47 U			
Aroclor 1260	ug/kg	47 U			
Aroclor 1262	ug/kg	47 U			
Aroclor 1268	ug/kg	47 U			
A-BHC	ug/kg	2.4 U			
B-BHC	ug/kg	2.4 U			
D-BHC	ug/kg	2.4 U			
G-BHC	ug/kg	2.4 U			
cis-Chlordane	ug/kg	2.4 U			
trans-Chlordane	ug/kg	2.4 U			
p,p'-DDD	ug/kg	4.7 U			

Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
p,p'-DDE	ug/kg	4.7 U			
p,p'-DDT	ug/kg	4.7 U			
Dieldrin	ug/kg	4.7 U			
Endosulfan I	ug/kg	2.4 U			
Endosulfan II	ug/kg	4.7 U			
Endosulfan Sulfate	ug/kg	4.7 U			
Endrin	ug/kg	4.7 U			
Endrin Aldehyde	ug/kg	4.7 U			
Endrin Ketone	ug/kg	4.7 U			
Heptachlor	ug/kg	2.4 U			
Heptachlor Epoxide	ug/kg	2.4 U			
p,p'-Methoxychlor	ug/kg	24 U			
Toxaphene	ug/kg	240 U			
1 Semi-Volatile Organic Compounds in Soil					
Acenaphthene	ug/kg	240 U			
Acenaphthylene	ug/kg	240 U			
Acetophenone	ug/kg	470 U			
Anthracene	ug/kg	240 U			
Atrazine	ug/kg	470 U			
Benzaldehyde	ug/kg	470 U			
Benzo(a)anthracene	ug/kg	240 U			
Benzo(a)pyrene	ug/kg	240 U			
Benzo(b)fluoranthene	ug/kg	250			
Benzo(g,h,i)perylene	ug/kg	240 U			
Benzo(k)fluoranthene	ug/kg	240 U			
Biphenyl	ug/kg	240 U			
bis(2-Chloroethoxy)methane	ug/kg	240 U			
bis(2-Chloroethyl)ether	ug/kg	470 U			
bis(2-Chloroisopropyl)ether	ug/kg	470 U			
bis(2-Ethylhexyl)phthalate	ug/kg	240 U			
4-Bromophenyl-phenylether	ug/kg	240 U			
Butylbenzylphthalate	ug/kg	240 U			
Caprolactam	ug/kg	470 U			
Carbazole	ug/kg	470 U			
4-Chloro-3-methylphenol	ug/kg	240 U			
4-Chloroaniline	ug/kg	470 U			
2-Chloronaphthalene	ug/kg	240 U			
2-Chlorophenol	ug/kg	240 U			
4-Chlorophenyl-phenylether	ug/kg	240 U			
Chrysene	ug/kg	240 U			
Di-n-butylphthalate	ug/kg	240 U			
Di-n-octylphthalate	ug/kg	470 U			
Dibenz(a,h)anthracene	ug/kg	240 U			
Dibenzofuran	ug/kg	240 U			
3,3'-Dichlorobenzidine	ug/kg	470 U			

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Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
2,4-Dichlorophenol	ug/kg	240 U			
Diethylphthalate	ug/kg	240 U			
2,4-Dimethylphenol	ug/kg	240 U			
Dimethylphthalate	ug/kg	240 U			
4,6-Dinitro-2-methylphenol	ug/kg	470 UJ			
2,4-Dinitrophenol	ug/kg	470 UJ			
2,4-Dinitrotoluene	ug/kg	240 U			
2,6-Dinitrotoluene	ug/kg	240 U			
1,4-Dioxane	ug/kg	95 UJ			
Fluoranthene	ug/kg	470 U			
Fluorene	ug/kg	240 U			
Hexachlorobenzene	ug/kg	240 U			
Hexachlorobutadiene	ug/kg	240 U			
Hexachlorocyclopentadiene	ug/kg	470 U			
Hexachloroethane	ug/kg	240 UJ			
Indeno(1,2,3-cd)pyrene	ug/kg	240 U			
Isophorone	ug/kg	240 U			
2-Methylnaphthalene	ug/kg	240 U			
2-Methylphenol	ug/kg	470 U			
4-Methylphenol	ug/kg	470 U			
Naphthalene	ug/kg	240 U			
2-Nitroaniline	ug/kg	240 U			
3-Nitroaniline	ug/kg	470 U			
4-Nitroaniline	ug/kg	470 U			
Nitrobenzene	ug/kg	240 U			
2-Nitrophenol	ug/kg	240 U			
4-Nitrophenol	ug/kg	470 UJ			
N-nitroso-di-n-propylamine	ug/kg	240 U			
N-nitrosodiphenylamine	ug/kg	240 U			
Pentachlorophenol	ug/kg	470 U			
Phenanthrene	ug/kg	240 U			
Phenol	ug/kg	470 U			
Pyrene	ug/kg	240 U			
1,2,4,5-Tetrachlorobenzene	ug/kg	240 U			
2,4,5-Trichlorophenol	ug/kg	240 U			
2,4,6-Trichlorophenol	ug/kg	240 U			
1 Semi-Volatile TPH (DRO & ORO) in Soil by GC/FID					
TPH DRO	mg/kg	12.3 U			
TPH ORO	mg/kg	97.2 U			
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L				1.0 U
2,4-D	ug/L				1.0 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L				0.20 U

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Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
1 Mercury in Water					
Mercury	ug/L				0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L				2.0 U
Arsenic	ug/L				2.5
Barium	ug/L				176
Beryllium	ug/L				1.0 U
Cadmium	ug/L				1.0 U
Chromium	ug/L				2.0 U
Cobalt	ug/L				1.0 U
Copper	ug/L				2.0 U
Lead	ug/L				1.0 U
Manganese	ug/L				213
Nickel	ug/L				1.2
Selenium	ug/L				5.0 U
Silver	ug/L				1.0 U
Thallium	ug/L				1.0 U
Vanadium	ug/L				5.0 U
Zinc	ug/L				24.5
1 Metals in Water by ICP/MS					
Antimony	ug/L				2.0 U
Arsenic	ug/L				3.8
Barium	ug/L				208
Beryllium	ug/L				1.0 U
Cadmium	ug/L				1.0 U
Chromium	ug/L				18.8
Cobalt	ug/L				8.9
Copper	ug/L				10.9
Lead	ug/L				17.9
Manganese	ug/L				260
Nickel	ug/L				12.7
Selenium	ug/L				5.0 U
Silver	ug/L				1.0 U
Thallium	ug/L				1.0 U
Vanadium	ug/L				25.0
Zinc	ug/L				83.8
1 Pesticides in Water by GC/EC					
Aldrin	ug/L				0.050 U
Aroclor 1016	ug/L				1.0 U
Aroclor 1221	ug/L				1.0 U
Aroclor 1232	ug/L				1.0 U
Aroclor 1242	ug/L				1.0 U
Aroclor 1248	ug/L				1.0 U
Aroclor 1254	ug/L				1.0 U
Aroclor 1260	ug/L				1.0 U
Aroclor 1262	ug/L				1.0 U

Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
Aroclor 1268	ug/L				1.0 U
A-BHC	ug/L				0.050 U
B-BHC	ug/L				0.050 U
D-BHC	ug/L				0.050 U
G-BHC	ug/L				0.050 U
cis-Chlordane	ug/L				0.050 U
trans-Chlordane	ug/L				0.050 U
p,p'-DDD	ug/L				0.10 U
p,p'-DDE	ug/L				0.10 U
p,p'-DDT	ug/L				0.10 U
Dieldrin	ug/L				0.10 U
Endosulfan I	ug/L				0.050 U
Endosulfan II	ug/L				0.10 U
Endosulfan Sulfate	ug/L				0.10 U
Endrin	ug/L				0.10 U
Endrin Aldehyde	ug/L				0.10 U
Endrin Ketone	ug/L				0.10 U
Heptachlor	ug/L				0.050 U
Heptachlor Epoxide	ug/L				0.050 U
p,p'-Methoxychlor	ug/L				0.50 U
Toxaphene	ug/L				5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L		5.0 U	5.0 U	
Acenaphthylene	ug/L		5.0 UJ	5.0 UJ	
Acetophenone	ug/L		10 U	10 U	
Anthracene	ug/L		5.0 U	5.0 U	
Atrazine	ug/L		N/A R	N/A R	
Benzaldehyde	ug/L		10 U	10 U	
Benzo(a)anthracene	ug/L		5.0 UJ	5.0 UJ	
Benzo(a)pyrene	ug/L		5.0 UJ	5.0 UJ	
Benzo(b)fluoranthene	ug/L		5.0 U	5.0 U	
Benzo(g,h,i)perylene	ug/L		5.0 UJ	5.0 UJ	
Benzo(k)fluoranthene	ug/L		5.0 UJ	5.0 UJ	
Biphenyl	ug/L		5.0 U	5.0 U	
bis(2-Chloroethoxy)methane	ug/L		5.0 U	5.0 U	
bis(2-Chloroethyl)ether	ug/L		10 U	10 U	
bis(2-Chloroisopropyl)ether	ug/L		10 UJ	10 UJ	
bis(2-Ethylhexyl)phthalate	ug/L		5.0 U	5.0 U	
4-Bromophenyl-phenylether	ug/L		5.0 U	5.0 U	
Butylbenzylphthalate	ug/L		5.0 U	5.0 U	
Caprolactam	ug/L		10 U	10 U	
Carbazole	ug/L		10 U	10 U	
4-Chloro-3-methylphenol	ug/L		5.0 U	5.0 U	
4-Chloroaniline	ug/L		N/A R	N/A R	
2-Chloronaphthalene	ug/L		5.0 U	5.0 U	

Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
2-Chlorophenol	ug/L			5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L			5.0 U	5.0 U
Chrysene	ug/L			5.0 U	5.0 U
Di-n-butylphthalate	ug/L			5.0 UJ	5.0 UJ
Di-n-octylphthalate	ug/L			10 U	10 U
Dibenz(a,h)anthracene	ug/L			5.0 UJ	5.0 UJ
Dibenzofuran	ug/L			5.0 U	5.0 U
3,3'-Dichlorobenzidine	ug/L			10 U	10 U
2,4-Dichlorophenol	ug/L			5.0 U	5.0 U
Diethylphthalate	ug/L			5.0 UJ	5.0 UJ
2,4-Dimethylphenol	ug/L			5.0 U	5.0 U
Dimethylphthalate	ug/L			5.0 U	5.0 U
4,6-Dinitro-2-methylphenol	ug/L			10 U	10 U
2,4-Dinitrophenol	ug/L			10 U	10 U
2,4-Dinitrotoluene	ug/L			5.0 U	5.0 U
2,6-Dinitrotoluene	ug/L			5.0 U	5.0 U
1,4-Dioxane	ug/L			2.0 U	2.0 U
Fluoranthene	ug/L			10 U	10 U
Fluorene	ug/L			5.0 U	5.0 U
Hexachlorobenzene	ug/L			5.0 UJ	5.0 UJ
Hexachlorobutadiene	ug/L			5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L			10 U	10 U
Hexachloroethane	ug/L			5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L			5.0 U	5.0 U
Isophorone	ug/L			5.0 U	5.0 U
2-Methylnaphthalene	ug/L			5.0 U	5.0 U
2-Methylphenol	ug/L			10 U	10 U
4-Methylphenol	ug/L			10 U	10 U
Naphthalene	ug/L			5.0 UJ	5.0 UJ
2-Nitroaniline	ug/L			5.0 U	5.0 U
3-Nitroaniline	ug/L			10 U	10 U
4-Nitroaniline	ug/L			10 U	10 U
Nitrobenzene	ug/L			5.0 U	5.0 U
2-Nitrophenol	ug/L			5.0 U	5.0 U
4-Nitrophenol	ug/L			10 U	10 U
N-nitroso-di-n-propylamine	ug/L			5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L			5.0 U	5.0 U
Pentachlorophenol	ug/L			10 U	10 U
Phenanthrene	ug/L			5.0 UJ	5.0 UJ
Phenol	ug/L			10 U	10 U
Pyrene	ug/L			5.0 UJ	5.0 UJ
1,2,4,5-Tetrachlorobenzene	ug/L			5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L			5.0 U	5.0 U
2,4,5-Trichlorophenol	ug/L			5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L			5.0 U	5.0 U

Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L				0.5 U
TPH ORO	mg/L				2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L		5.0 UJ	5.0 U	5.0 U
Benzene	ug/L		1.3 J	0.50 U	0.50 UJ
Bromochloromethane	ug/L		0.50 UJ	0.50 U	0.50 U
Bromodichloromethane	ug/L		0.50 UJ	0.50 U	0.50 U
Bromoform	ug/L		0.50 UJ	0.50 U	0.50 U
Bromomethane	ug/L		0.50 UJ	0.50 U	0.50 U
2-Butanone	ug/L		5.0 UJ	5.0 U	5.0 U
Carbon Disulfide	ug/L		0.50 UJ	0.50 U	0.50 U
Carbon Tetrachloride	ug/L		0.50 UJ	0.50 U	0.50 U
Chlorobenzene	ug/L		0.50 UJ	0.50 U	0.50 UJ
Chloroethane	ug/L		0.50 UJ	0.50 U	0.50 U
Chloroform	ug/L		0.50 UJ	0.50 U	0.50 U
Chloromethane	ug/L		0.50 UJ	0.50 U	0.50 U
Cyclohexane	ug/L		0.50 UJ	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L			N/A R	N/A R
Dibromochloromethane	ug/L			0.50 UJ	0.50 U
1,2-Dibromoethane	ug/L			0.50 UJ	0.50 U
1,2-Dichlorobenzene	ug/L			0.50 UJ	0.50 U
1,3-Dichlorobenzene	ug/L			0.50 UJ	0.50 U
1,4-Dichlorobenzene	ug/L			0.50 UJ	0.50 U
Dichlorodifluoromethane	ug/L			0.50 UJ	0.50 U
1,1-Dichloroethane	ug/L			0.50 UJ	0.50 U
1,2-Dichloroethane	ug/L			0.50 UJ	0.50 U
1,1-Dichloroethylene	ug/L			0.50 UJ	0.50 UJ
cis-1,2-Dichloroethylene	ug/L			19 J	0.50 U
trans-1,2-Dichloroethylene	ug/L			0.50 UJ	0.50 U
1,2-Dichloropropane	ug/L			0.50 UJ	0.50 U
cis-1,3-Dichloropropene	ug/L			0.50 UJ	0.50 U
trans-1,3-Dichloropropene	ug/L			0.50 UJ	0.50 U
Ethyl Benzene	ug/L			0.50 UJ	0.50 U
2-Hexanone	ug/L			5.0 UJ	5.0 U
Isopropylbenzene	ug/L			0.50 UJ	0.50 U
Methyl Acetate	ug/L			0.50 UJ	0.50 U
Methyl tert-butyl ether	ug/L			0.50 UJ	0.50 U
Methylcyclohexane	ug/L			0.50 UJ	0.50 U
Methylene Chloride	ug/L			0.50 UJ	0.50 U
4-Methyl-2-Pentanone	ug/L			5.0 UJ	5.0 U
Styrene	ug/L			0.50 UJ	0.50 U
1,1,2,2-Tetrachloroethane	ug/L			0.50 UJ	0.50 U
Tetrachloroethene	ug/L			0.50 UJ	0.50 U
Toluene	ug/L			0.50 UJ	0.50 U
1,2,3-Trichlorobenzene	ug/L			0.50 UJ	0.50 U

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Analysis/ Analyte	Units	111-__	201-__	202-__	203-__
1,2,4-Trichlorobenzene	ug/L		0.50 UJ	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L		0.50 UJ	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L		0.50 UJ	0.50 U	0.50 U
Trichloroethene	ug/L		0.50 UJ	0.50 U	0.50 U
Trichlorofluoromethane	ug/L		0.50 UJ	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L		0.50 UJ	0.50 U	0.50 U
Vinyl Chloride	ug/L		8.0 J	0.50 U	0.50 U
m and/or p-Xylene	ug/L		0.50 UJ	0.50 U	0.50 U
o-Xylene	ug/L		0.50 UJ	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L			0.04 U	0.04 U

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Analysis/ Analyte	Units	204-__	205-__	206-__	207-__
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L	1.0 U			1.0 U
2,4-D	ug/L	1.0 U			1.0 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.20 U			0.20 U
1 Mercury in Water					
Mercury	ug/L	0.20 U			0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U			2.0 U
Arsenic	ug/L	1.0			1.2
Barium	ug/L	116			106
Beryllium	ug/L	1.0 U			1.0 U
Cadmium	ug/L	1.0 U			1.0 U
Chromium	ug/L	2.0 U			2.0 U
Cobalt	ug/L	1.0 U			1.0 U
Copper	ug/L	2.0 U			2.0 U
Lead	ug/L	1.0 U			1.0 U
Manganese	ug/L	347			270
Nickel	ug/L	1.0 U			3.0
Selenium	ug/L	5.0 U			5.0 U
Silver	ug/L	1.0 U			1.0 U
Thallium	ug/L	1.0 U			1.0 U
Vanadium	ug/L	5.0 U			5.0 U
Zinc	ug/L	2.9 U			26.9
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U			2.0 U
Arsenic	ug/L	4.3			1.1
Barium	ug/L	136			108
Beryllium	ug/L	1.0 U			1.0 U
Cadmium	ug/L	1.0 U			1.0 U
Chromium	ug/L	2.0			4.4
Cobalt	ug/L	2.6			1.0 U
Copper	ug/L	4.7			4.7
Lead	ug/L	4.5			1.0 U
Manganese	ug/L	610			270
Nickel	ug/L	7.4			4.0
Selenium	ug/L	5.0 U			5.0 U
Silver	ug/L	1.0 U			1.0 U
Thallium	ug/L	1.0 U			1.0 U
Vanadium	ug/L	5.0 U			5.0 U
Zinc	ug/L	24.3			27.6
1 Pesticides in Water by GC/EC					
Aldrin	ug/L	0.050 U		0.050 U	0.050 U
Aroclor 1016	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1221	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1232	ug/L	1.0 U		1.0 U	1.0 U

Analysis/ Analyte	Units	204-__	205-__	206-__	207-__
Aroclor 1242	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1248	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1254	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1260	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1262	ug/L	1.0 U		1.0 U	1.0 U
Aroclor 1268	ug/L	1.0 U		1.0 U	1.0 U
A-BHC	ug/L	0.050 U		0.050 U	0.050 U
B-BHC	ug/L	0.050 U		0.050 U	0.050 U
D-BHC	ug/L	0.050 U		0.050 U	0.050 U
G-BHC	ug/L	0.050 U		0.050 U	0.050 U
cis-Chlordane	ug/L	0.050 U		0.050 U	0.050 U
trans-Chlordane	ug/L	0.050 U		0.050 U	0.050 U
p,p'-DDD	ug/L	0.10 U		0.10 U	0.10 U
p,p'-DDE	ug/L	0.10 U		0.10 U	0.10 U
p,p'-DDT	ug/L	0.10 U		0.10 U	0.10 U
Dieldrin	ug/L	0.10 U		0.10 U	0.10 U
Endosulfan I	ug/L	0.050 U		0.050 U	0.050 U
Endosulfan II	ug/L	0.10 U		0.10 U	0.10 U
Endosulfan Sulfate	ug/L	0.10 U		0.10 U	0.10 U
Endrin	ug/L	0.10 U		0.10 U	0.10 U
Endrin Aldehyde	ug/L	0.10 U		0.10 U	0.10 U
Endrin Ketone	ug/L	0.10 U		0.10 U	0.10 U
Heptachlor	ug/L	0.050 U		0.050 U	0.050 U
Heptachlor Epoxide	ug/L	0.050 U		0.050 U	0.050 U
p,p'-Methoxychlor	ug/L	0.50 U		0.50 U	0.50 U
Toxaphene	ug/L	5.0 U		5.0 U	5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Acetophenone	ug/L	10 U	10 U	10 U	10 U
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	N/A R	N/A R	N/A R	10 U
Benzaldehyde	ug/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Benzo(a)pyrene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Biphenyl	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether	ug/L	10 UJ	10 UJ	10 UJ	10 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

Analysis/ Analyte	Units	204-__	205-__	206-__	207-__
Caprolactam	ug/L	10 U	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	N/A R	N/A R	N/A R	10 U
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Dibenzofuran	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	10 U	10 U	10 U	10 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U	10 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	10 U	10 U	10 U	10 U
4-Methylphenol	ug/L	10 U	10 U	10 U	10 U
Naphthalene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	ug/L	10 U	10 U	10 U	10 U
Phenanthrene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Phenol	ug/L	10 U	10 U	10 U	10 U

Analysis/ Analyte	Units	204-__	205-__	206-__	207-__
Pyrene	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
1,2,4,5-Tetrachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	N/A R	N/A R	N/A R	N/A R
Dibromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

ASR Number: 7219
Project ID: THDB7C7

RLAB Approved Sample Analysis Results
Project Desc: Tanglefoot Lane

11/28/2016

Analysis/ Analyte	Units	204-__	205-__	206-__	207-__
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	ug/L	0.99	0.50 U	0.89	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.04 U	0.04 U	0.04 U	0.04 U

ASR Number: 7219

Project ID: THDB7C7

RLAB Approved Sample Analysis Results

Project Desc: Tanglefoot Lane

11/28/2016

Analysis/ Analyte	Units	208-__	209-__	210-__	211-__
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2,4-D	ug/L	4.3	4.7	1.0 U	1.0 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
1 Mercury in Water					
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	1.4	1.7	11.7	2.0
Barium	ug/L	78.1	52.1	428	96.2
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	2.0 U	2.1	2.0 U	2.0 U
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Manganese	ug/L	126	171	123	1530
Nickel	ug/L	1.1	1.1	1.5	3.8
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Zinc	ug/L	6.7 U	8.9	10.1	4.5 U
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	1.7	1.7	11.5	6.7
Barium	ug/L	86.2	57.2	449	647
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	4.1	6.8
Cobalt	ug/L	1.0 U	1.0 U	1.8	8.8
Copper	ug/L	2.6	2.5	4.9	12.1
Lead	ug/L	1.0 U	1.0 U	2.7	3.7
Manganese	ug/L	189	242	157	4960
Nickel	ug/L	1.3	1.1	7.1	15.9
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	5.0 U	5.0 U	5.2	10.3
Zinc	ug/L	8.4	7.8 U	34.1	43.8
1 Pesticides in Water by GC/EC					
Aldrin	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Aroclor 1016	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1221	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1232	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

Analysis/ Analyte	Units	208-__	209-__	210-__	211-__
Aroclor 1242	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1248	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1254	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1260	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1262	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1268	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
A-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
B-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
D-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
G-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
cis-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
trans-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-DDD	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDE	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDT	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Dieldrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan I	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan II	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan Sulfate	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Aldehyde	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Ketone	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Heptachlor	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor Epoxide	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-Methoxychlor	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Acetophenone	ug/L	10 U	10 U	10 U	10 U
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	10 U	10 U	N/A R	10 U
Benzaldehyde	ug/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Biphenyl	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether	ug/L	10 U	10 U	10 UJ	10 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

Analysis/ Analyte	Units	208-__	209-__	210-__	211-__
Caprolactam	ug/L	10 U	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U	10 U	N/A R	10 U
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Dibenzo furan	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	10 U	10 U	10 U	10 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U	10 U
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	ug/L	10 U	10 U	10 U	10 U
4-Methylphenol	ug/L	10 U	10 U	10 U	10 U
Naphthalene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	ug/L	10 U	10 U	10 U	10 U
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
Phenol	ug/L	10 U	10 U	10 U	10 U

Analysis/ Analyte	Units	208-__	209-__	210-__	211-__
Pyrene	ug/L	5.0 U	5.0 U	5.0 UJ	5.0 U
1,2,4,5-Tetrachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,3,4,6-Tetrachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	6.3	7.8	5.0 U	5.0
Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Bromomethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	N/A R	N/A R	N/A R	N/A R
Dibromochloromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.59	0.50 U	1.4	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U

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Analysis/ Analyte	Units	208-__	209-__	210-__	211-__
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.04 U	0.04 U	0.04 U	0.04 U

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Project ID: THDB7C7

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Analysis/ Analyte	Units	212-__	213-__	214-__	215-__
1 Herbicides in Water by GC/EC					
2,4,5-T	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2,4-D	ug/L	2.9	1.0 U	1.0 U	4.6
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
1 Mercury in Water					
Mercury	ug/L	0.20 U	0.21	0.20 U	0.20 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	1.9	1.0 U	2.9	3.7
Barium	ug/L	56.1	85.3	126	635
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	3.3	1.9	1.4
Copper	ug/L	5.9	2.0 U	2.0 U	2.0 U
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Manganese	ug/L	28.2	145	509	211
Nickel	ug/L	1.8	6.7	6.5	6.2
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Zinc	ug/L	10.1	16.9	39.7	13.7
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	2.1	10.4	12.0	4.0
Barium	ug/L	59.7	842	249	672
Beryllium	ug/L	1.0 U	8.2	1.2	1.0 U
Cadmium	ug/L	1.0 U	1.7	4.3	1.0 U
Chromium	ug/L	2.3	76.6	79.0	2.0 U
Cobalt	ug/L	1.0 U	148	41.6	1.3
Copper	ug/L	6.8	123	57.4	14.9
Lead	ug/L	1.0 U	147	187	13.7
Manganese	ug/L	38.3	5510	4390	233
Nickel	ug/L	2.4	181	75.5	7.6
Selenium	ug/L	5.0 U	5.0 UU	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	5.0 U	112	37.9	5.0 U
Zinc	ug/L	13.6	1050	229	48.4
1 Pesticides in Water by GC/EC					
Aldrin	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Aroclor 1016	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1221	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1232	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

Analysis/ Analyte	Units	212-__	213-__	214-__	215-__
Aroclor 1242	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1248	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1254	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1260	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1262	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor 1268	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
A-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
B-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
D-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
G-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
cis-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
trans-Chlordane	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-DDD	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDE	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
p,p'-DDT	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Dieldrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan I	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan II	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan Sulfate	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Aldehyde	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Endrin Ketone	ug/L	0.10 U	0.10 U	0.10 U	0.10 U
Heptachlor	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor Epoxide	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
p,p'-Methoxychlor	ug/L	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Acenaphthylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Acetophenone	ug/L	10 U	10 U	10 U	10 U
Anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	ug/L	10 U	10 U	10 U	10 U
Benzaldehyde	ug/L	10 U	10 U	10 U	10 U
Benzo(a)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Biphenyl	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
bis(2-Chloroethoxy)methane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	ug/L	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether	ug/L	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

Analysis/ Analyte	Units	212-__	213-__	214-__	215-__
Caprolactam	ug/L	10 U	10 U	10 U	10 U
Carbazole	ug/L	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Chrysene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octylphthalate	ug/L	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzo furan	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
3,3'-Dichlorobenzidine	ug/L	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,4-Dimethylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 UJ
2,4-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,6-Dinitrotoluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
1,4-Dioxane	ug/L	2.0 U	160	3.2	60
Fluoranthene	ug/L	10 U	10 U	10 U	10 U
Fluorene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Hexachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	ug/L	10 U	10 U	10 U	10 UJ
Hexachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	ug/L	5.0 U	10	5.0 U	5.0 U
2-Methylphenol	ug/L	10 U	29	10 U	10 U
4-Methylphenol	ug/L	10 U	37	10 U	10 U
Naphthalene	ug/L	5.0 U	10	5.0 U	5.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
3-Nitroaniline	ug/L	10 U	10 U	10 U	10 UJ
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 UJ
Nitrobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 UJ
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	ug/L	10 U	10 U	10 U	10 U
Phenanthrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	ug/L	10 U	10 U	10 U	10 U

ASR Number: 7219

Project ID: THDB7C7

RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	212-__	213-__	214-__	215-__
Pyrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4,5-Tetrachlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,3,4,6-Tetrachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	500 U	13	6.1
Benzene	ug/L	0.50 U	50 U	0.60	170
Bromochloromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Bromoform	ug/L	0.50 U	50 U	0.50 U	0.50 U
Bromomethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	500 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	50 U	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	50 U	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	50 U	0.50 U	300
Chloroform	ug/L	0.50 U	50 U	0.50 U	0.50 U
Chloromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	50 U	3.2	4.1
1,2-Dibromo-3-Chloropropane	ug/L	N/A R	N/A R	N/A R	N/A R
Dibromochloromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	50 U	2.1	12
1,2-Dichloroethane	ug/L	0.50 U	50 U	0.50 U	0.70
1,1-Dichloroethene	ug/L	0.50 U	320	45 J	3.9
cis-1,2-Dichloroethene	ug/L	0.50 U	50 U	150	12
trans-1,2-Dichloroethene	ug/L	0.50 U	50 U	8.8 J	1.3
1,2-Dichloropropane	ug/L	0.50 U	50 U	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	50 U	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	50 U	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	50 U	3.1	11
2-Hexanone	ug/L	5.0 U	500 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	50 U	0.60	2.3
Methyl Acetate	ug/L	0.50 U	50 U	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	50 U	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	50 U	0.50 U	0.50 U

ASR Number: 7219
Project ID: THDB7C7

RLAB Approved Sample Analysis Results
Project Desc: Tanglefoot Lane

11/28/2016

Analysis/ Analyte	Units	212-__	213-__	214-__	215-__
4-Methyl-2-Pentanone	ug/L	5.0 U	500 U	5.0 U	5.0 U
Styrene	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	83	15	1.3
Toluene	ug/L	0.50 U	4600	500	460
1,2,3-Trichlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	3000	290	28 J
1,1,2-Trichloroethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	6800	600	60
Trichlorofluoromethane	ug/L	0.50 U	50 U	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	170	17	0.50 U
Vinyl Chloride	ug/L	0.50 U	50 U	6.1	19
m and/or p-Xylene	ug/L	0.50 U	66	13	28 J
o-Xylene	ug/L	0.50 U	50 U	4.0	9.3
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.04 U	75.7	4.23	2.63

Analysis/ Analyte	Units	216-__	225-FB
1 Herbicides in Water by GC/EC			
2,4,5-T	ug/L	1.0 U	
2,4-D	ug/L	1.0 U	
1 Mercury - Dissolved, in Water			
Mercury	ug/L	0.20 U	
1 Mercury in Water			
Mercury	ug/L	0.20 U	
1 Metals - Dissolved, in Water by ICP/MS			
Antimony	ug/L	2.0 U	
Arsenic	ug/L	1.0 U	
Barium	ug/L	10.0 U	
Beryllium	ug/L	1.0 U	
Cadmium	ug/L	1.0 U	
Chromium	ug/L	2.0 U	
Cobalt	ug/L	1.0 U	
Copper	ug/L	2.0 U	
Lead	ug/L	1.0 U	
Manganese	ug/L	1.0 U	
Nickel	ug/L	1.0 U	
Selenium	ug/L	5.0 U	
Silver	ug/L	1.0 U	
Thallium	ug/L	1.0 U	
Vanadium	ug/L	5.0 U	
Zinc	ug/L	2.0 U	
1 Metals in Water by ICP/MS			
Antimony	ug/L	2.0 U	
Arsenic	ug/L	1.0 U	
Barium	ug/L	10.0 U	
Beryllium	ug/L	1.0 U	
Cadmium	ug/L	1.0 U	
Chromium	ug/L	2.0 U	
Cobalt	ug/L	1.0 U	
Copper	ug/L	2.0 U	
Lead	ug/L	1.0 U	
Manganese	ug/L	1.0 U	
Nickel	ug/L	1.0 U	
Selenium	ug/L	5.0 U	
Silver	ug/L	1.0 U	
Thallium	ug/L	1.0 U	
Vanadium	ug/L	5.0 U	
Zinc	ug/L	2.0 U	
1 Pesticides in Water by GC/EC			
Aldrin	ug/L	0.050 U	
Aroclor 1016	ug/L	1.0 U	
Aroclor 1221	ug/L	1.0 U	
Aroclor 1232	ug/L	1.0 U	

Analysis/ Analyte	Units	216-__	225-FB
Aroclor 1242	ug/L	1.0 U	
Aroclor 1248	ug/L	1.0 U	
Aroclor 1254	ug/L	1.0 U	
Aroclor 1260	ug/L	1.0 U	
Aroclor 1262	ug/L	1.0 U	
Aroclor 1268	ug/L	1.0 U	
A-BHC	ug/L	0.050 U	
B-BHC	ug/L	0.050 U	
D-BHC	ug/L	0.050 U	
G-BHC	ug/L	0.050 U	
cis-Chlordane	ug/L	0.050 U	
trans-Chlordane	ug/L	0.050 U	
p,p'-DDD	ug/L	0.10 U	
p,p'-DDE	ug/L	0.10 U	
p,p'-DDT	ug/L	0.10 U	
Dieldrin	ug/L	0.10 U	
Endosulfan I	ug/L	0.050 U	
Endosulfan II	ug/L	0.10 U	
Endosulfan Sulfate	ug/L	0.10 U	
Endrin	ug/L	0.10 U	
Endrin Aldehyde	ug/L	0.10 U	
Endrin Ketone	ug/L	0.10 U	
Heptachlor	ug/L	0.050 U	
Heptachlor Epoxide	ug/L	0.050 U	
p,p'-Methoxychlor	ug/L	0.50 U	
Toxaphene	ug/L	5.0 U	
1 Semi-Volatile Organic Compounds in Water			
Acenaphthene	ug/L	5.0 U	
Acenaphthylene	ug/L	5.0 U	
Acetophenone	ug/L	10 U	
Anthracene	ug/L	5.0 U	
Atrazine	ug/L	10 U	
Benzaldehyde	ug/L	10 U	
Benzo(a)anthracene	ug/L	5.0 U	
Benzo(a)pyrene	ug/L	5.0 U	
Benzo(b)fluoranthene	ug/L	5.0 U	
Benzo(g,h,i)perylene	ug/L	5.0 U	
Benzo(k)fluoranthene	ug/L	5.0 U	
Biphenyl	ug/L	5.0 U	
bis(2-Chloroethoxy)methane	ug/L	5.0 U	
bis(2-Chloroethyl)ether	ug/L	10 U	
bis(2-Chloroisopropyl)ether	ug/L	10 U	
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	
4-Bromophenyl-phenylether	ug/L	5.0 U	
Butylbenzylphthalate	ug/L	5.0 U	

Analysis/ Analyte	Units	216-__	225-FB
Caprolactam	ug/L	10 U	
Carbazole	ug/L	10 U	
4-Chloro-3-methylphenol	ug/L	5.0 U	
4-Chloroaniline	ug/L	10 U	
2-Chloronaphthalene	ug/L	5.0 U	
2-Chlorophenol	ug/L	5.0 U	
4-Chlorophenyl-phenylether	ug/L	5.0 U	
Chrysene	ug/L	5.0 U	
Di-n-butylphthalate	ug/L	5.0 U	
Di-n-octylphthalate	ug/L	10 U	
Dibenz(a,h)anthracene	ug/L	5.0 U	
Dibenzo furan	ug/L	5.0 U	
3,3'-Dichlorobenzidine	ug/L	10 U	
2,4-Dichlorophenol	ug/L	5.0 U	
Diethylphthalate	ug/L	5.0 U	
2,4-Dimethylphenol	ug/L	5.0 U	
Dimethylphthalate	ug/L	5.0 U	
4,6-Dinitro-2-methylphenol	ug/L	10 U	
2,4-Dinitrophenol	ug/L	10 U	
2,4-Dinitrotoluene	ug/L	5.0 U	
2,6-Dinitrotoluene	ug/L	5.0 U	
1,4-Dioxane	ug/L	2.4	
Fluoranthene	ug/L	10 U	
Fluorene	ug/L	5.0 U	
Hexachlorobenzene	ug/L	5.0 U	
Hexachlorobutadiene	ug/L	5.0 U	
Hexachlorocyclopentadiene	ug/L	10 U	
Hexachloroethane	ug/L	5.0 U	
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	
Isophorone	ug/L	5.0 U	
2-Methylnaphthalene	ug/L	5.0 U	
2-Methylphenol	ug/L	10 U	
4-Methylphenol	ug/L	10 U	
Naphthalene	ug/L	5.0 U	
2-Nitroaniline	ug/L	5.0 U	
3-Nitroaniline	ug/L	10 U	
4-Nitroaniline	ug/L	10 U	
Nitrobenzene	ug/L	5.0 U	
2-Nitrophenol	ug/L	5.0 U	
4-Nitrophenol	ug/L	10 U	
N-nitroso-di-n-propylamine	ug/L	5.0 U	
N-nitrosodiphenylamine	ug/L	5.0 U	
Pentachlorophenol	ug/L	10 U	
Phenanthrene	ug/L	5.0 U	
Phenol	ug/L	10 U	

Analysis/ Analyte	Units	216-__	225-FB
Pyrene	ug/L	5.0 U	
1,2,4,5-Tetrachlorobenzene	ug/L	5.0 U	
2,3,4,6-Tetrachlorophenol	ug/L	5.0 U	
2,4,5-Trichlorophenol	ug/L	5.0 U	
2,4,6-Trichlorophenol	ug/L	5.0 U	
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID			
TPH DRO	mg/L	0.5 U	
TPH ORO	mg/L	2 U	
1 VOCs in Water by GC/MS for Low Detection Limits			
Acetone	ug/L	5.0 U	5.0 U
Benzene	ug/L	0.50 U	0.50 U
Bromochloromethane	ug/L	0.50 U	0.50 U
Bromodichloromethane	ug/L	0.50 U	0.50 U
Bromoform	ug/L	0.50 U	0.50 U
Bromomethane	ug/L	0.50 U	0.50 U
2-Butanone	ug/L	5.0 U	5.0 U
Carbon Disulfide	ug/L	0.50 U	0.50 U
Carbon Tetrachloride	ug/L	0.50 U	0.50 U
Chlorobenzene	ug/L	0.50 U	0.50 U
Chloroethane	ug/L	0.50 U	0.50 U
Chloroform	ug/L	2.4	0.50 U
Chloromethane	ug/L	0.50 U	0.50 U
Cyclohexane	ug/L	0.50 U	0.50 U
1,2-Dibromo-3-Chloropropane	ug/L	N/A R	N/A R
Dibromochloromethane	ug/L	0.50 U	0.50 U
1,2-Dibromoethane	ug/L	0.50 U	0.50 U
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U
1,1-Dichloroethane	ug/L	0.50 U	0.50 U
1,2-Dichloroethane	ug/L	0.50 U	0.50 U
1,1-Dichloroethene	ug/L	0.50 U	0.50 U
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U
1,2-Dichloropropane	ug/L	0.50 U	0.50 U
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U
Ethyl Benzene	ug/L	0.50 U	0.50 U
2-Hexanone	ug/L	5.0 U	5.0 U
Isopropylbenzene	ug/L	0.50 U	0.50 U
Methyl Acetate	ug/L	0.50 U	0.50 U
Methyl tert-butyl ether	ug/L	0.50 U	0.50 U
Methylcyclohexane	ug/L	0.50 U	0.50 U
Methylene Chloride	ug/L	0.50 U	0.50 U

ASR Number: 7219
Project ID: THDB7C7

RLAB Approved Sample Analysis Results
Project Desc: Tanglefoot Lane

11/28/2016

Analysis/ Analyte	Units	216-__	225-FB
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U
Styrene	ug/L	0.50 U	0.50 U
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U
Tetrachloroethene	ug/L	0.50 U	0.50 U
Toluene	ug/L	0.50 U	0.50 U
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U
Trichloroethene	ug/L	0.50 U	0.50 U
Trichlorofluoromethane	ug/L	0.50 U	0.50 U
1,1,2-Trichlorotrifluoroethane	ug/L	0.50 U	0.50 U
Vinyl Chloride	ug/L	0.50 U	0.50 U
m and/or p-Xylene	ug/L	0.50 U	0.50 U
o-Xylene	ug/L	0.50 U	0.50 U
1 Volatile TPH in Water by GC/MS			
TPH GRO	mg/L	0.04 U	0.04 U

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 05/01/2018

Subject: Transmittal of Sample Analysis Results for ASR #: 7782

Project ID: THB7C700

Project Description: Tanglefoot Lane - Removal Assessment

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Environmental Sciences & Technology Division

To: Todd Davis
SUPR/AERR

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our ENST records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

Project Manager: Todd Davis**Org:** SUPR/AERR**Phone:** 913-551-7749**Project ID:** THB7C700**Project Desc:** Tanglefoot Lane - Removal Assessment**Location:** Bettendorf**State:** Iowa**Program:** Superfund**Site Name:** Tanglefoot Lane - SITE EVALUATION/DISPOSITION**Site ID:** B7C7 **Site OU:** 00**Purpose:** Site Characterization**GPRA PRC:** 000DC6

Site Investigation (SI)/Removal Assessment (RA) sampling.

EPA PM (TD)/Sampler noted via email dated 2/2/18 that this ASR is not part of a litigation hold activity at this time.

Explanation of Codes, Units and Qualifiers used on this report**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

= Field Sample

ug/m³ = Micrograms per Cubic Meter

FB = Field Blank

mg/L = Milligrams per Liter

FD = Field Duplicate

ug/L = Micrograms per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

U = The analyte was not detected at or above the reporting limit.

O = Parameter not analyzed.

ASR Number: 7782**Sample Information Summary****05/01/2018****Project ID:** THB7C700**Project Desc:** Tanglefoot Lane - Removal Assessment

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Air	(b) (6)		03/19/2018	15:15	03/20/2018	14:39	03/23/2018
2 -		Air	(b) (6)		03/19/2018	15:20	03/20/2018	14:40	03/23/2018
3 -		Air	(b) (6)		03/19/2018	15:50	03/20/2018	15:20	03/23/2018
4 -		Air	(b) (6)		03/20/2018	08:26	03/21/2018	08:02	03/23/2018
5 -		Air	(b) (6)		03/20/2018	08:18	03/21/2018	08:00	03/23/2018
6 -		Air	(b) (6)		03/20/2018	08:32	03/21/2018	08:04	03/23/2018
7 -		Air	(b) (6)		03/20/2018	08:39	03/21/2018	07:50	03/23/2018
8 -		Air	(b) (6)		03/20/2018	09:24	03/21/2018	08:40	03/23/2018
9 -		Air	(b) (6)		03/20/2018	09:20	03/21/2018	08:37	03/23/2018
10 -		Air	(b) (6)		03/20/2018	09:22	03/21/2018	08:39	03/23/2018
11 -		Air	(b) (6)		03/20/2018	10:17	03/21/2018	09:24	03/23/2018
12 -		Air	(b) (6)		03/20/2018	10:19	03/21/2018	09:26	03/23/2018
13 -		Air	(b) (6)		03/20/2018	10:46	03/21/2018	09:38	03/23/2018
14 -		Air	(b) (6)		03/20/2018	10:47	03/21/2018	09:40	03/23/2018
15 -		Air	(b) (6)		03/20/2018	12:13	03/21/2018	11:32	03/23/2018
16 -		Air	(b) (6)		03/20/2018	12:48	03/21/2018	11:55	03/23/2018
17 -		Air	(b) (6)		03/20/2018	12:50	03/21/2018	11:57	03/23/2018
18 -		Air	(b) (6)		03/20/2018	17:18	03/21/2018	16:49	03/23/2018
19 -		Air	(b) (6)		03/20/2018	17:20	03/21/2018	16:53	03/23/2018
20 -		Air	(b) (6)		03/21/2018	14:17	03/22/2018	13:47	03/23/2018
21 -		Air	(b) (6)		03/21/2018	14:20	03/22/2018	13:50	03/23/2018
22 -		Air	(b) (6)		03/21/2018	14:58	03/22/2018	14:01	03/23/2018
23 -		Air	(b) (6)		03/21/2018	15:01	03/22/2018	14:04	03/23/2018
24 -		Air	(b) (6)		03/21/2018	15:05	03/22/2018	14:06	03/23/2018
25 -		Air	(b) (6)		03/21/2018	20:47	03/22/2018	19:53	03/23/2018
26 -		Air	(b) (6)		03/21/2018	20:52	03/22/2018	19:55	03/23/2018
27 - FB		Air	(b) (6)		03/22/2018	22:00			03/23/2018
101 -		Water	(b) (6)		03/21/2018	10:15			03/23/2018
101 - FD		Water	(b) (6)		03/21/2018	10:15			03/23/2018
102 -		Water	(b) (6)		03/22/2018	10:15			03/23/2018
103 -		Water	(b) (6)		03/22/2018	12:40			03/23/2018
104 -		Water	(b) (6)		03/22/2018	14:20			03/23/2018
105 -		Water	(b) (6)		03/22/2018	14:53			03/23/2018
106 -		Water	(b) (6)		03/22/2018	16:40			03/23/2018
113 - FB		Water	Field Blank		03/22/2018	17:30			03/23/2018
114 - FB		Water	LDL VOA/TPH VOA (GRO) Trip Blank sample		03/22/2018	22:00			03/23/2018

Analysis Comments About Results For This Analysis

1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.4H

Samples:	1-	2-	3-	4-	5-	6-	7-
	8-	9-	10-	11-	12-	13-	14-
	15-	16-	17-	18-	19-	20-	21-
	22-	23-	24-	25-	26-	27-FB	

Comments:

Sample 22 did not have sufficient volume to perform this analysis with the normal size sample aliquot. The reporting limits were therefore increased by a factor of 7.46 for all analytes.

Vinyl Acetate was UJ-coded in samples 6, 8, 10-12, 15, 16, 22, 24 and 27-fb. Tetrahydrofuran was UJ-coded in samples 1-9, 13, 14, 16, 18, 20-26 and 27-fb. 1,4-Dioxane and 4-Ethyltoluene were UJ-coded in samples 1-26 and 27-fb. Styrene was UJ-coded in samples 1-10, 13-26 and 27-fb. 1,3,5-Trimethylbenzene was UJ-coded in samples 1-8, 10, 14, 15, 17-24, 26 and 27-fb. 1,2,4-Trimethylbenzene was UJ-coded in samples 2-4, 6, 8, 14, 17, 22-24, 26 and 27-fb. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are estimates (UJ-coded) due to the initial instrument calibration curve not meeting linearity specifications. The actual reporting limits may be higher than the reported values.

Vinyl Acetate was J-coded in samples 1-5, 7, 9, 13, 14, 17-21, 23, 25 and 26. Tetrahydrofuran was J-coded in samples 10-12, 15, 17 and 19. Styrene was J-coded in samples 11 and 12. 1,3,5-Trimethylbenzene was J-coded in samples 9, 11-13, 16 and 25. 1,2,4-Trimethylbenzene was J-coded in samples 1, 5, 7, 9-13, 15, 16, 18-21 and 25. Although the analytes in question have been positively identified in the samples, the quantitations are estimates (J-coded) due to the initial instrument calibration curve not meeting linearity specifications.

2-Butanone was UJ-coded in samples 16, 18, 22, 24 and 27-fb. 4-Methyl-2-Pentanone and Benzyl Chloride were UJ-coded in samples 15-26 and 27-fb. 2-Hexanone was UJ-coded in samples 1-26 and 27-fb. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are estimates (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limits for these analytes may be higher than the reported values.

2-Butanone was J-coded in samples 15, 17, 19-21, 23, 25 and 26. Although the analytes in question have been positively identified in the samples, the quantitations are estimates (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentrations for these analytes may be higher than the reported values.

2-Propanol was UJ-coded in samples 1, 5, 6, 8, 16, 18, 22, 24, 25 and 27-fb. 1,1,2-Trichloroethane, cis-1,3-Dichloropropene and 1,2-Dibromoethane were UJ-coded in samples 15-26 and 27-fb. Toluene was UJ-coded in samples 23, 24 and 27-fb. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are estimates (UJ-coded) due to low recoveries of these analytes in the

Analysis Comments About Results For This Analysis

laboratory control sample. The actual reporting limits for these analytes may be higher than the reported values.

2-Propanol was J-coded in samples 2-4, 7, 9-15, 17, 19-21, 23 and 26. Toluene was J-coded in samples 15-22, 25 and 26. Although the analytes in question have been positively identified in the samples, the quantitations are estimates (J-coded) due to low recoveries of these analytes in the laboratory control sample. The actual concentrations for these analytes may be higher than the reported values.

1 Acid Herbicides in Water by LCMSMS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3280.1C

Samples: 101- 101-FD 102- 103- 104- 105- 106-
 113-FB

Comments:

RL's for 2,4,5-T, Dichlorprop, and Triclopyr raised to 0.050ug/L to meet RL criteria for method update.

1 Mercury - Dissolved, in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23D applied to field filtered samples for "dissolved" results

Samples: 101- 101-FD 102- 103- 104- 105- 106-

Comments:

1 Mercury in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23D

Samples: 101- 101-FD 102- 103- 104- 105- 106-
 113-FB

Comments:

(N/A)

1 Metals - Dissolved, in Water by ICP/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3123.1D Applied to Field Filtered Samples for "Dissolved" Results

Samples: 101- 101-FD 102- 103- 104- 105- 106-

Comments:

(N/A)

Analysis Comments About Results For This Analysis

1 Metals in Water by ICP/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3123.1D**Samples:** 101- 101-FD 102- 103- 104- 105- 106-
 113-FB**Comments:**

1 Pesticides and PCBs in Water by Twister GC/MS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.20D for Pesticides only**Samples:** 101- 101-FD 102- 103- 104- 105- 106-
 113-FB**Comments:**

Endrin Aldehyde was UJ-coded in all samples and its reporting limit has been raised from 0.1 ug/L to 0.5 ug/L. This analyte was not found in the samples at or above the raised reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity specifications. The actual reporting limit may be higher than the reported value.

1 Pesticides in Water by GC/EC

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3240.2K**Samples:** 101- 101-FD 102- 103- 104- 105- 106-
 113-FB**Comments:**

Analysis for these samples/analytes is reported from LTAB Method 3230.20D, "Pesticides and PCBs in Water by Twister GC/MS." Thus, results of 'N/A' were reported with O-codes for this method.

1 Semi-Volatile Organic Compounds in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.**Method:** EPA Region 7 RLAB Method 3230.2H**Samples:** 101- 101-FD 102- 103- 104- 105- 106-
 113-FB**Comments:**

3,3'-Dichlorobenzidine, Indeno(1,2,3-cd)pyrene and Benzo(g,h,i)perylene were UJ-coded in all samples. These analytes were not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration

Analysis Comments About Results For This Analysis

check and/or the initial calibration check not meeting accuracy specifications. The actual reporting limit for these analytes may be higher than the reported value.

1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Lab: REST Contract Lab (Out-Source)

Method: Similar to Modified version of SW846 Method 8015 (see comments)

Samples: 101- 101-FD 102- 103- 104- 105- 106-
 113-FB

Comments:

(N/A)

1 VOCs in Water by GC/MS for Low Detection Limits

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.13F

Samples: 101- 101-FD 102- 103- 104- 105- 106-
 113-FB 114-FB

Comments:

The vial analyzed for sample 105 was not preserved to pH of less than 2. As it was analyzed within the 7-day holding time established for unpreserved samples, no coding was needed.

Styrene, m- and/or p-Xylene and o-Xylene were UJ-coded in sample 102. These analytes were not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.

1 Volatile TPH in Water by GC/MS

Lab: REST Contract Lab (Out-Source)

Method: Similar to Volatile TPH by GC/MS (see comments)

Samples: 101- 101-FD 102- 103- 104- 105- 106-
 113-FB 114-FB

Comments:

(N/A)

ASR Number: 7782

RLAB Approved Sample Analysis Results**05/01/2018**

Project ID: THB7C700

Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	5.5	19	22	21
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.56	0.46	1.7	0.50
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.53	0.45 U
2-Butanone	ug/m3	1.9 U	2.7	4.2	2.7
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.63 J	0.63 J	0.68 J	0.63 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.12 U	0.31	0.70	0.23
Chloromethane	ug/m3	0.42 U	1.8	2.8	1.8
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	3.2	3.4	3.0	3.4
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.17	0.31	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	1.1 U	1.2	4.1	1.1 U
Ethyl Benzene	ug/m3	2.4	0.88 U	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	0.79	0.71 U
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
2-Propanol	ug/m3	0.50 UJ	7.9 J	4.5 J	23 J
Propene	ug/m3	0.35 U	0.86	3.6	16
Styrene	ug/m3	0.86 UJ	0.86 UJ	0.86 UJ	0.86 UJ

ASR Number: 7782**Project ID:** THB7C700**RLAB Approved Sample Analysis Results****05/01/2018****Project Desc:** Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.60 UJ	0.60 UJ	0.60 UJ	0.60 UJ
Toluene	ug/m3	9.1	2.9	4.9	0.76 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.9	1.8	2.7	3.2
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	5.4 J	0.99 UJ	0.99 UJ	0.99 UJ
1,3,5-Trimethylbenzene	ug/m3	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ
2,2,4-Trimethylpentane	ug/m3	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	ug/m3	0.85 J	1.2 J	3.2 J	2.1 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	12	1.8 U	2.1	1.8 U
o-Xylene	ug/m3	3.5	0.88 U	0.88 U	0.88 U

ASR Number: 7782

RLAB Approved Sample Analysis Results**05/01/2018**

Project ID: THB7C700

Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	4.0	4.7	32	4.0
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.39	0.33	0.50	0.32
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	1.9 U	1.9 U	2.6	1.9 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.59 J	0.64 J	0.65 J	0.64 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.47	0.12 U	0.41	0.12
Chloromethane	ug/m3	0.42 U	1.7	1.4	1.8
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	3.2	3.5	15	3.6
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.10 U	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.55	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	1.1 U	1.1 U	6.8	1.1 U
Ethyl Benzene	ug/m3	1.5	0.88 U	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
2-Propanol	ug/m3	0.50 UJ	0.50 UJ	44 J	0.50 UJ
Propene	ug/m3	0.35 U	0.41	0.92	0.35 U
Styrene	ug/m3	0.86 UJ	0.86 UJ	0.86 UJ	0.86 UJ

ASR Number: 7782**Project ID:** THB7C700**RLAB Approved Sample Analysis Results****05/01/2018****Project Desc:** Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.67	0.34 U
Tetrahydrofuran	ug/m3	0.60 UJ	0.60 UJ	0.60 UJ	0.60 UJ
Toluene	ug/m3	6.6	0.76 U	4.2	0.76 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.8	1.8	2.7	1.9
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	4.0 J	0.99 UJ	1.5 J	0.99 UJ
1,3,5-Trimethylbenzene	ug/m3	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ
2,2,4-Trimethylpentane	ug/m3	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	ug/m3	1.2 J	0.72 UJ	4.2 J	0.72 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	8.5	1.8 U	1.8 U	1.8 U
o-Xylene	ug/m3	2.5	0.88 U	0.88 U	0.88 U

ASR Number: 7782

RLAB Approved Sample Analysis Results**05/01/2018**

Project ID: THB7C700

Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	15	64	27	46
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	2.6	3.4	4.9	8.1
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 U	4.2 U
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	1.9 U	18	24	18
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.55 J	0.62 J	0.67 J	0.59 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.18	0.89	0.42	0.45
Chloromethane	ug/m3	0.65	1.8	1.5	2.0
Cyclohexane	ug/m3	1.3	1.4	0.76	2.5
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	3.2	3.3	5.1	7.5
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.35	3.2	0.12	0.18
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	1.1 U	11	2.2	15
Ethyl Benzene	ug/m3	3.6	2.1	3.2	5.1
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	2.8	2.4	2.1	5.1
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	6.8	6.8	4.4	15
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	1.2	8.6	17
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	2.1
2-Propanol	ug/m3	0.77 J	210 J	29 J	33 J
Propene	ug/m3	3.1	4.4	8.0	3.0
Styrene	ug/m3	0.86 UJ	0.86 UJ	1.9 J	2.1 J

ASR Number: 7782**Project ID:** THB7C700**RLAB Approved Sample Analysis Results****05/01/2018****Project Desc:** Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	21	24
Tetrahydrofuran	ug/m3	0.60 UJ	7.7 J	0.67 J	0.72 J
Toluene	ug/m3	18	15	28	42
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	4.5	3.8	1.7	1.6
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	6.2 J	3.2 J	6.4 J	7.2 J
1,3,5-Trimethylbenzene	ug/m3	1.2 J	0.99 UJ	1.1 J	1.3 J
2,2,4-Trimethylpentane	ug/m3	1.2	1.3	9.8	5.8
Vinyl Acetate	ug/m3	1.3 J	0.72 UJ	0.72 UJ	0.72 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	14	7.8	13	19
o-Xylene	ug/m3	4.4	2.6	4.4	6.2

ASR Number: 7782

Project ID: THB7C700

RLAB Approved Sample Analysis Results

05/01/2018

Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	5.0	33	66	4.4
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.55	0.64	4.4	0.62
Benzyl Chloride	ug/m3	4.2 U	4.2 U	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	2.2	4.5	8.5 J	1.9 UJ
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.54 J	0.61 J	0.53	0.32
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.12 U	1.1	0.54	0.32
Chloromethane	ug/m3	0.42 U	1.7	1.2	0.42 U
Cyclohexane	ug/m3	0.70 U	0.70 U	3.2	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 UJ	1.6 UJ
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.6	3.1	2.4	1.0 U
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.10 U	0.14	0.17	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 UJ	0.46 UJ
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	1.1 U	9.6	3.9	1.1 U
Ethyl Benzene	ug/m3	3.0	0.88 U	1.8	2.7
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	0.83 U	0.83 U	3.6	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	10	0.71 U
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 UJ	1.7 UJ
2-Propanol	ug/m3	0.54 J	7.1 J	8.3 J	0.50 UJ
Propene	ug/m3	0.35 U	1.0	2.4	0.35 U
Styrene	ug/m3	0.86 UJ	0.86 UJ	0.86 UJ	0.86 UJ

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Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	1.9	0.34 U
Tetrahydrofuran	ug/m3	0.60 UJ	0.60 UJ	11 J	0.60 UJ
Toluene	ug/m3	11	2.2	21 J	11 J
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 UJ	1.1 UJ
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.6	1.7	1.4	1.5
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	8.7 J	0.99 UJ	2.6 J	8.0 J
1,3,5-Trimethylbenzene	ug/m3	1.5 J	0.99 UJ	0.99 UJ	1.4 J
2,2,4-Trimethylpentane	ug/m3	1.0 U	1.0 U	3.0	1.0 U
Vinyl Acetate	ug/m3	2.7 J	4.2 J	0.72 UJ	0.72 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	16	1.8 U	7.8	14
o-Xylene	ug/m3	4.8	0.88 U	2.4	4.3

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Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	41	3.3	46	5.7
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.63	0.50	3.8	0.32
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	5.3 J	1.9 UJ	16 J	2.3 J
Carbon Disulfide	ug/m3	0.63 U	0.63 U	5.9	0.63 U
Carbon Tetrachloride	ug/m3	0.52	0.32 U	0.51	0.32 U
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	1.5	0.34	1.2	0.12 U
Chloromethane	ug/m3	1.4	0.42 U	1.5	0.42 U
Cyclohexane	ug/m3	0.70 U	0.70 U	2.1	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 UJ	1.6 UJ	1.6 UJ	1.6 UJ
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.7	1.0 U	2.6	2.9
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	1.2	0.10 U	0.55	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 UJ	0.46 UJ	0.46 UJ	0.46 UJ
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	3.6	1.1 U	5.6	1.1 U
Ethyl Benzene	ug/m3	0.88 U	2.1	2.1	0.93
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	0.83 U	0.83 U	3.0	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	0.71 U	0.71 U	7.3	0.71 U
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	2.0	0.70 U	9.6	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
2-Propanol	ug/m3	63 J	0.50 UJ	9.6 J	0.56 J
Propene	ug/m3	1.2	0.35 U	6.3	0.59
Styrene	ug/m3	0.86 UJ	0.86 UJ	0.86 UJ	0.86 UJ

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Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	1.2	0.80	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	1.3 J	0.60 UJ	3.3 J	0.60 UJ
Toluene	ug/m3	6.5 J	8.2 J	17 J	3.1 J
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.6	1.4	1.4	1.4
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.99 UJ	5.4 J	3.0 J	3.7 J
1,3,5-Trimethylbenzene	ug/m3	0.99 UJ	0.99 UJ	0.99 UJ	0.99 UJ
2,2,4-Trimethylpentane	ug/m3	1.1	1.0 U	1.7	1.0 U
Vinyl Acetate	ug/m3	4.3 J	1.4 J	6.0 J	0.91 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	1.8 U	11	8.0	5.5
o-Xylene	ug/m3	0.88 U	3.1	2.8	1.6

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Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	36	21	20	3.3
Allyl Chloride	ug/m3	0.32 U	2.4 U	0.32 U	0.32 U
Benzene	ug/m3	1.2	1.7	0.57	0.26
Benzyl Chloride	ug/m3	4.2 UJ	31 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	10 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	16 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	5.8 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	3.4 U	0.45 U	0.45 U
2-Butanone	ug/m3	2.8 J	14 UJ	2.1 J	1.9 UJ
Carbon Disulfide	ug/m3	0.63 U	4.7 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.53	2.4 U	0.55	0.55
Chlorobenzene	ug/m3	0.93 U	6.9 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	4.0 U	0.53 U	0.53 U
Chloroform	ug/m3	1.8	0.90 U	0.17	0.12 U
Chloromethane	ug/m3	1.5	3.1 U	1.3	1.4
Cyclohexane	ug/m3	0.85	5.2 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	13 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 UJ	12 UJ	1.6 UJ	1.6 UJ
1,2-Dichlorobenzene	ug/m3	1.2 U	9.0 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	9.0 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	9.0 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.8	7.5 U	2.6	2.9
1,1-Dichloroethane	ug/m3	0.82 U	6.1 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.15	0.75 U	0.89	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	1.5 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	1.5 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	1.5 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	6.9 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 UJ	3.4 UJ	0.46 UJ	0.46 UJ
trans-1,3-Dichloropropene	ug/m3	0.46 U	3.4 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	10 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 UJ	5.4 UJ	0.73 UJ	0.73 UJ
Ethyl Acetate	ug/m3	41	8.2 U	6.6	1.1 U
Ethyl Benzene	ug/m3	2.2	6.6 U	0.88 U	0.88 U
4-Ethyltoluene	ug/m3	4.0 UJ	30 UJ	4.0 UJ	4.0 UJ
Heptane	ug/m3	2.3	6.2 U	0.83 U	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	16 U	2.2 U	2.2 U
Hexane	ug/m3	2.7	5.3 U	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 UJ	13 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	5.4 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.94	5.2 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 UJ	13 UJ	1.7 UJ	1.7 UJ
2-Propanol	ug/m3	8.8 J	3.7 UJ	5.8 J	0.50 UJ
Propene	ug/m3	4.9	2.9	1.7	0.35 U
Styrene	ug/m3	0.86 UJ	6.4 UJ	0.86 UJ	0.86 UJ

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Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	10 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.54	2.5 U	0.34 U	0.34 U
Tetrahydrofuran	ug/m3	0.60 UJ	4.5 UJ	0.60 UJ	0.60 UJ
Toluene	ug/m3	11 J	16 J	0.76 UJ	0.76 UJ
1,2,4-Trichlorobenzene	ug/m3	1.5 U	11 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	8.2 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 UJ	8.2 UJ	1.1 UJ	1.1 UJ
Trichloroethene	ug/m3	0.27 U	2.0 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.6	8.2 U	1.6	1.5
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	11 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	3.0 J	7.4 UJ	0.99 UJ	0.99 UJ
1,3,5-Trimethylbenzene	ug/m3	0.99 UJ	7.4 UJ	0.99 UJ	0.99 UJ
2,2,4-Trimethylpentane	ug/m3	5.4	7.5 U	1.0 U	1.0 U
Vinyl Acetate	ug/m3	7.6 J	5.4 UJ	2.0 J	0.72 UJ
Vinyl Bromide	ug/m3	0.88 U	6.6 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.97 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	9.3	13 U	1.8 U	1.8 U
o-Xylene	ug/m3	3.5	6.6 U	0.88 U	0.88 U

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Project Desc: Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	25-__	26-__	27-FB	101-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	9.8	21	0.96 U	
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	
Benzene	ug/m3	0.38	0.87	0.16 U	
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	
2-Butanone	ug/m3	2.9 J	2.4 J	1.9 UJ	
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	
Carbon Tetrachloride	ug/m3	0.52	0.55	0.32 U	
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	
Chloroform	ug/m3	0.35	1.4	0.12 U	
Chloromethane	ug/m3	0.48	1.4	0.42 U	
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	
1,2-Dibromoethane	ug/m3	1.6 UJ	1.6 UJ	1.6 UJ	
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	
Dichlorodifluoromethane	ug/m3	2.8	2.9	1.0 U	
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	
1,2-Dichloroethane	ug/m3	0.10 U	0.22	0.10 U	
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	
cis-1,3-Dichloropropene	ug/m3	0.46 UJ	0.46 UJ	0.46 UJ	
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	
1,4-Dioxane	ug/m3	0.73 UJ	0.73 UJ	0.73 UJ	
Ethyl Acetate	ug/m3	1.1 U	14	1.1 U	
Ethyl Benzene	ug/m3	1.6	0.88 U	0.88 U	
4-Ethyltoluene	ug/m3	4.0 UJ	4.0 UJ	4.0 UJ	
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	
Hexane	ug/m3	0.71 U	0.71 U	0.71 U	
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	
4-Methyl-2-Pentanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	
2-Propanol	ug/m3	0.50 UJ	7.4 J	0.50 UJ	
Propene	ug/m3	1.3	1.7	0.35 U	
Styrene	ug/m3	0.86 UJ	0.86 UJ	0.86 UJ	

ASR Number: 7782**Project ID:** THB7C700**RLAB Approved Sample Analysis Results****05/01/2018****Project Desc:** Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	25-__	26-__	27-FB	101-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.34 U	
Tetrahydrofuran	ug/m3	0.60 UJ	0.60 UJ	0.60 UJ	
Toluene	ug/m3	5.0 J	1.9 J	0.76 UJ	
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	
1,1,2-Trichloroethane	ug/m3	1.1 UJ	1.1 UJ	1.1 UJ	
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	
Trichlorofluoromethane	ug/m3	1.5	1.6	1.1 U	
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	
1,2,4-Trimethylbenzene	ug/m3	7.0 J	0.99 UJ	0.99 UJ	
1,3,5-Trimethylbenzene	ug/m3	1.1 J	0.99 UJ	0.99 UJ	
2,2,4-Trimethylpentane	ug/m3	1.0 U	1.0 U	1.0 U	
Vinyl Acetate	ug/m3	3.0 J	2.0 J	0.72 UJ	
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	
m and/or p-Xylene	ug/m3	9.3	1.8 U	1.8 U	
o-Xylene	ug/m3	2.8	0.88 U	0.88 U	
1 Acid Herbicides in Water by LCMSMS					
2,4,5-T	ug/L			0.050 U	
2,4,5-TP	ug/L			0.050 U	
2,4-D	ug/L			0.050 U	
Dicamba	ug/L			0.050 U	
Dichlorprop	ug/L			0.050 U	
Pentachlorophenol	ug/L			0.050 U	
Triclopyr	ug/L			0.050 U	
1 Mercury - Dissolved, in Water					
Mercury	ug/L			0.250 U	
1 Mercury in Water					
Mercury	ug/L			0.250 U	
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L			2.0 U	
Arsenic	ug/L			4.1	
Barium	ug/L			505	
Beryllium	ug/L			1.0 U	
Cadmium	ug/L			1.0 U	
Chromium	ug/L			2.3	
Cobalt	ug/L			1.0 U	
Copper	ug/L			2.0 U	
Lead	ug/L			1.0 U	
Manganese	ug/L			103	
Nickel	ug/L			4.2	
Selenium	ug/L			5.0 U	
Silver	ug/L			1.0 U	
Thallium	ug/L			1.0 U	

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Analysis/ Analyte	Units	25-__	26-__	27-FB	101-__
Vanadium	ug/L			1.0 U	
Zinc	ug/L			3.9	
1 Metals in Water by ICP/MS					
Antimony	ug/L			2.0 U	
Arsenic	ug/L			4.0	
Barium	ug/L			553	
Beryllium	ug/L			1.0 U	
Cadmium	ug/L			1.0 U	
Chromium	ug/L			2.0 U	
Cobalt	ug/L			1.0 U	
Copper	ug/L			5.4	
Lead	ug/L			1.0 U	
Manganese	ug/L			99.0	
Nickel	ug/L			3.6	
Selenium	ug/L			5.0 U	
Silver	ug/L			1.0 U	
Thallium	ug/L			1.0 U	
Vanadium	ug/L			1.0 U	
Zinc	ug/L			10.1	
1 Pesticides and PCBs in Water by Twister GC/MS					
Aldrin	ug/L			0.020 U	
Aroclor 1221	ug/L			0.25 U	
Aroclor 1232	ug/L			0.25 U	
Aroclor 1242	ug/L			0.25 U	
Aroclor 1248	ug/L			0.25 U	
Aroclor 1254	ug/L			0.25 U	
Aroclor 1260	ug/L			0.25 U	
A-BHC	ug/L			0.020 U	
B-BHC	ug/L			0.050 U	
D-BHC	ug/L			0.050 U	
G-BHC	ug/L			0.020 U	
cis-Chlordane	ug/L			0.020 U	
Chlordane, technical	ug/L			0.20 U	
trans-Chlordane	ug/L			0.020 U	
p,p'-DDD	ug/L			0.020 U	
p,p'-DDE	ug/L			0.020 U	
p,p'-DDT	ug/L			0.020 U	
Dieldrin	ug/L			0.020 U	
Endosulfan I	ug/L			0.020 U	
Endosulfan II	ug/L			0.020 U	
Endosulfan Sulfate	ug/L			0.020 U	
Endrin	ug/L			0.020 U	
Endrin Aldehyde	ug/L			0.50 UJ	
Endrin Ketone	ug/L			0.020 U	
Heptachlor	ug/L			0.020 U	

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Heptachlor Epoxide	ug/L			0.020 U	
p,p'-Methoxychlor	ug/L			0.020 U	
Toxaphene	ug/L			1.0 U	
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L			N/A O	
Aroclor 1221	ug/L			N/A O	
Aroclor 1232	ug/L			N/A O	
Aroclor 1242	ug/L			N/A O	
Aroclor 1248	ug/L			N/A O	
Aroclor 1254	ug/L			N/A O	
Aroclor 1260	ug/L			N/A O	
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L			2.0 U	
Acenaphthylene	ug/L			2.0 U	
Anthracene	ug/L			2.0 U	
Benzo(a)anthracene	ug/L			2.0 U	
Benzo(a)pyrene	ug/L			2.0 U	
Benzo(b)fluoranthene	ug/L			2.0 U	
Benzo(g,h,i)perylene	ug/L			2.0 UJ	
Benzo(k)fluoranthene	ug/L			2.0 U	
Benzoic acid	ug/L			10 U	
Benzyl alcohol	ug/L			5.0 U	
bis(2-Chloroethoxy)methane	ug/L			2.0 U	
bis(2-Chloroethyl)ether	ug/L			2.0 U	
bis(2-Chloroisopropyl)ether	ug/L			2.0 U	
bis(2-Ethylhexyl)phthalate	ug/L			5.0 U	
4-Bromophenyl-phenylether	ug/L			2.0 U	
Butylbenzylphthalate	ug/L			5.0 U	
Carbazole	ug/L			5.0 U	
4-Chloro-3-methylphenol	ug/L			5.0 U	
4-Chloroaniline	ug/L			10 U	
2-Chloronaphthalene	ug/L			2.0 U	
2-Chlorophenol	ug/L			5.0 U	
4-Chlorophenyl-phenylether	ug/L			2.0 U	
Chrysene	ug/L			2.0 U	
Di-n-butylphthalate	ug/L			5.0 U	
Di-n-octylphthalate	ug/L			5.0 U	
Dibenz(a,h)anthracene	ug/L			2.0 U	
Dibenzofuran	ug/L			2.0 U	
1,2-Dichlorobenzene	ug/L			2.0 U	
1,3-Dichlorobenzene	ug/L			2.0 U	
1,4-Dichlorobenzene	ug/L			2.0 U	
3,3'-Dichlorobenzidine	ug/L			10 UJ	
2,4-Dichlorophenol	ug/L			5.0 U	
Diethylphthalate	ug/L			2.0 U	

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Analysis/ Analyte	Units	25-__	26-__	27-FB	101-__
2,4-Dimethylphenol	ug/L			2.0 U	
Dimethylphthalate	ug/L			2.0 U	
4,6-Dinitro-2-methylphenol	ug/L			10 U	
2,4-Dinitrophenol	ug/L			10 U	
2,4-Dinitrotoluene	ug/L			2.0 U	
2,6-Dinitrotoluene	ug/L			2.0 U	
Fluoranthene	ug/L			2.0 U	
Fluorene	ug/L			2.0 U	
Hexachlorobenzene	ug/L			2.0 U	
Hexachlorobutadiene	ug/L			2.0 U	
Hexachlorocyclopentadiene	ug/L			2.0 U	
Hexachloroethane	ug/L			2.0 U	
Indeno(1,2,3-cd)pyrene	ug/L			2.0 UJ	
Isophorone	ug/L			2.0 U	
2-Methylnaphthalene	ug/L			2.0 U	
2-Methylphenol	ug/L			5.0 U	
4-Methylphenol	ug/L			5.0 U	
Naphthalene	ug/L			2.0 U	
2-Nitroaniline	ug/L			5.0 U	
3-Nitroaniline	ug/L			5.0 U	
4-Nitroaniline	ug/L			10 U	
Nitrobenzene	ug/L			2.0 U	
2-Nitrophenol	ug/L			5.0 U	
4-Nitrophenol	ug/L			10 U	
N-nitroso-di-n-propylamine	ug/L			5.0 U	
N-nitrosodiphenylamine	ug/L			2.0 U	
Pentachlorophenol	ug/L			5.0 U	
Phenanthrene	ug/L			2.0 U	
Phenol	ug/L			2.0 U	
Pyrene	ug/L			2.0 U	
1,2,4-Trichlorobenzene	ug/L			2.0 U	
2,4,5-Trichlorophenol	ug/L			5.0 U	
2,4,6-Trichlorophenol	ug/L			5.0 U	
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L			0.5 U	
TPH ORO	mg/L			2 U	
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L			5.0 U	
Benzene	ug/L			1.0 U	
Bromodichloromethane	ug/L			1.0 U	
Bromoform	ug/L			1.0 U	
Bromomethane	ug/L			1.0 U	
2-Butanone	ug/L			5.0 U	
Carbon Disulfide	ug/L			1.0 U	
Carbon Tetrachloride	ug/L			1.0 U	

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Analysis/ Analyte	Units	25-__	26-__	27-FB	101-__
Chlorobenzene	ug/L			1.0 U	
Chloroethane	ug/L			1.0 U	
Chloroform	ug/L			1.0 U	
Chloromethane	ug/L			1.0 U	
Cyclohexane	ug/L			1.0 U	
1,2-Dibromo-3-Chloropropane	ug/L			5.0 U	
Dibromochloromethane	ug/L			1.0 U	
1,2-Dibromoethane	ug/L			1.0 U	
1,2-Dichlorobenzene	ug/L			1.0 U	
1,3-Dichlorobenzene	ug/L			1.0 U	
1,4-Dichlorobenzene	ug/L			1.0 U	
Dichlorodifluoromethane	ug/L			1.0 U	
1,1-Dichloroethane	ug/L			1.0 U	
1,2-Dichloroethane	ug/L			1.0 U	
1,1-Dichloroethene	ug/L			1.0 U	
cis-1,2-Dichloroethene	ug/L			1.0 U	
trans-1,2-Dichloroethene	ug/L			1.0 U	
1,2-Dichloropropane	ug/L			1.0 U	
cis-1,3-Dichloropropene	ug/L			1.0 U	
trans-1,3-Dichloropropene	ug/L			1.0 U	
Ethyl Benzene	ug/L			1.0 U	
2-Hexanone	ug/L			5.0 U	
Isopropylbenzene	ug/L			1.0 U	
Methyl Acetate	ug/L			5.0 U	
Methyl tert-butyl ether	ug/L			1.0 U	
Methylcyclohexane	ug/L			1.0 U	
Methylene Chloride	ug/L			1.0 U	
4-Methyl-2-Pentanone	ug/L			5.0 U	
Naphthalene	ug/L			2.0 U	
Styrene	ug/L			1.0 U	
1,1,2,2-Tetrachloroethane	ug/L			1.0 U	
Tetrachloroethene	ug/L			1.0 U	
Toluene	ug/L			1.0 U	
1,2,3-Trichlorobenzene	ug/L			1.0 U	
1,2,4-Trichlorobenzene	ug/L			1.0 U	
1,1,1-Trichloroethane	ug/L			1.0 U	
1,1,2-Trichloroethane	ug/L			1.0 U	
Trichloroethene	ug/L			1.0 U	
Trichlorofluoromethane	ug/L			1.0 U	
1,1,2-Trichlorotrifluoroethane	ug/L			1.0 U	
Vinyl Chloride	ug/L			1.0 U	
m and/or p-Xylene	ug/L			2.0 U	
o-Xylene	ug/L			1.0 U	
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L			0.04 U	

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Analysis/ Analyte	Units	101-FD	102-__	103-__	104-__
1 Acid Herbicides in Water by LCMSMS					
2,4,5-T	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4,5-TP	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4-D	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Dicamba	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Dichlorprop	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Pentachlorophenol	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Triclopyr	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.250 U	0.250 U	0.250 U	0.250 U
1 Mercury in Water					
Mercury	ug/L	0.250 U	0.250 U	0.250 U	0.250 U
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	4.6	1.0 U	1.0 U	1.0 U
Barium	ug/L	518	355	429	200
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.6	3.2	2.5	3.1
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	2.0 U	4.1	2.0 U	40.0
Lead	ug/L	1.0 U	1.0 U	1.0 U	2.5
Manganese	ug/L	103	83.5	25.0	6.2
Nickel	ug/L	4.3	3.6	4.1	4.7
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	3.0	5.5	5.9	29.4
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	4.1	1.0 U	1.0 U	1.0 U
Barium	ug/L	667	363	371	214
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chromium	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Copper	ug/L	6.0	22.3	10.6	69.9
Lead	ug/L	1.0 U	1.0 U	1.0 U	4.7
Manganese	ug/L	101	76.6	24.0	7.5
Nickel	ug/L	3.8	2.9	3.6	4.1
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Thallium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Zinc	ug/L	9.4	6.1	6.0	57.7

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Analysis/ Analyte	Units	101-FD	102-__	103-__	104-__
1 Pesticides and PCBs in Water by Twister GC/MS					
Aldrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1221	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1232	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1242	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1248	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1254	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1260	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
A-BHC	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
B-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
D-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
G-BHC	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
cis-Chlordane	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Chlordane, technical	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
trans-Chlordane	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDD	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDE	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDT	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Dieldrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan I	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan II	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan Sulfate	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endrin Aldehyde	ug/L	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Endrin Ketone	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Heptachlor	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Heptachlor Epoxide	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-Methoxychlor	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Toxaphene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1221	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1232	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1242	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1248	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1254	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1260	ug/L	N/A O	N/A O	N/A O	N/A O
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(b)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(g,h,i)perylene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Benzo(k)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U

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Analysis/ Analyte	Units	101-FD	102-__	103-__	104-__
Benzoic acid	ug/L	10 U	10 U	10 U	10 U
Benzyl alcohol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroethyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroisopropyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U	10 U	10 U	10 U
2-Choronaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Chrysene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibenzofuran	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	ug/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dimethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluorene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobutadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachloroethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Indeno(1,2,3-cd)pyrene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Isophorone	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylnaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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Analysis/ Analyte	Units	101-FD	102-__	103-__	104-__
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pentachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Phenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

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Analysis/ Analyte	Units	101-FD	102-__	103-__	104-__
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 UJ	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 UJ	1.0 U	1.0 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.04 U	0.04 U	0.04 U	0.04 U

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Analysis/ Analyte	Units	105-__	106-__	113-FB	114-FB
1 Acid Herbicides in Water by LCMSMS					
2,4,5-T	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4,5-TP	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
2,4-D	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Dicamba	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Dichlorprop	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Pentachlorophenol	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
Triclopyr	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
1 Mercury - Dissolved, in Water					
Mercury	ug/L	0.250 U	0.250 U		
1 Mercury in Water					
Mercury	ug/L	0.250 U	0.250 U	0.250 U	
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U		
Arsenic	ug/L	1.0 U	3.5		
Barium	ug/L	296	339		
Beryllium	ug/L	1.0 U	1.0 U		
Cadmium	ug/L	1.0 U	1.0 U		
Chromium	ug/L	3.1	2.0 U		
Cobalt	ug/L	1.0 U	1.0 U		
Copper	ug/L	5.3	2.0 U		
Lead	ug/L	3.3	1.0 U		
Manganese	ug/L	21.3	144		
Nickel	ug/L	5.0	4.5		
Selenium	ug/L	5.0 U	5.0 U		
Silver	ug/L	1.0 U	1.0 U		
Thallium	ug/L	1.0 U	1.0 U		
Vanadium	ug/L	1.0 U	1.0 U		
Zinc	ug/L	11.8	13.3		
1 Metals in Water by ICP/MS					
Antimony	ug/L	2.0 U	2.0 U	2.0 U	
Arsenic	ug/L	1.0 U	3.3	1.0 U	
Barium	ug/L	336	344	5.0 U	
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	
Chromium	ug/L	2.0 U	2.0 U	2.0 U	
Cobalt	ug/L	1.0 U	1.0 U	1.0 U	
Copper	ug/L	97.6	2.0 U	2.0 U	
Lead	ug/L	14.4	1.0 U	1.0 U	
Manganese	ug/L	431	140	1.0 U	
Nickel	ug/L	4.7	5.1	1.0 U	
Selenium	ug/L	5.0 U	5.0 U	5.0 U	
Silver	ug/L	1.0 U	1.0 U	1.0 U	
Thallium	ug/L	1.0 U	1.0 U	1.0 U	
Vanadium	ug/L	1.0 U	1.0 U	1.0 U	
Zinc	ug/L	37.7	39.9	5.2	

Analysis/ Analyte	Units	105-__	106-__	113-FB	114-FB
1 Pesticides and PCBs in Water by Twister GC/MS					
Aldrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Aroclor 1221	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1232	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1242	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1248	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1254	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
Aroclor 1260	ug/L	0.25 U	0.25 U	0.25 U	0.25 U
A-BHC	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
B-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
D-BHC	ug/L	0.050 U	0.050 U	0.050 U	0.050 U
G-BHC	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
cis-Chlordane	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Chlordane, technical	ug/L	0.20 U	0.20 U	0.20 U	0.20 U
trans-Chlordane	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDD	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDE	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-DDT	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Dieldrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan I	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan II	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endosulfan Sulfate	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endrin	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Endrin Aldehyde	ug/L	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Endrin Ketone	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Heptachlor	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Heptachlor Epoxide	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
p,p'-Methoxychlor	ug/L	0.020 U	0.020 U	0.020 U	0.020 U
Toxaphene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1 Pesticides in Water by GC/EC					
Aroclor 1016	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1221	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1232	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1242	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1248	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1254	ug/L	N/A O	N/A O	N/A O	N/A O
Aroclor 1260	ug/L	N/A O	N/A O	N/A O	N/A O
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Acenaphthylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(a)pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(b)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Benzo(g,h,i)perylene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Benzo(k)fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U

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Analysis/ Analyte	Units	105-__	106-__	113-FB	114-FB
Benzoic acid	ug/L	10 U	10 U	10 U	10 U
Benzyl alcohol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroethyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Chloroisopropyl)ether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
bis(2-Ethylhexyl)phthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Bromophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Butylbenzylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	ug/L	10 U	10 U	10 U	10 U
2-Chloronaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Chlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl-phenylether	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Chrysene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Di-n-butylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octylphthalate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dibenzofuran	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,3-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,4-Dichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
3,3'-Dichlorobenzidine	ug/L	10 UJ	10 UJ	10 UJ	10 UJ
2,4-Dichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Diethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4-Dimethylphenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Dimethylphthalate	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	ug/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,6-Dinitrotoluene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluoranthene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Fluorene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorobutadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachlorocyclopentadiene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Hexachloroethane	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Indeno(1,2,3-cd)pyrene	ug/L	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ
Isophorone	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylnaphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	ug/L	5.0 U	5.0 U	5.0 U	5.0 U

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Analysis/ Analyte	Units	105-__	106-__	113-FB	114-FB
4-Nitroaniline	ug/L	10 U	10 U	10 U	10 U
Nitrobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2-Nitrophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Nitrophenol	ug/L	10 U	10 U	10 U	10 U
N-nitroso-di-n-propylamine	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
N-nitrosodiphenylamine	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pentachlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Phenol	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Pyrene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L	0.5 U	0.5 U	0.5 U	0.5 U
TPH ORO	mg/L	2 U	2 U	2 U	2 U
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U

ASR Number: 7782**Project ID:** THB7C700**RLAB Approved Sample Analysis Results****05/01/2018****Project Desc:** Tanglefoot Lane - Removal Assessment

Analysis/ Analyte	Units	105-__	106-__	113-FB	114-FB
Ethyl Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L	2.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L	0.04 U	0.04 U	0.04 U	0.04 U

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET	
TODD DAVIS	TANGLEFOOT LANE SIRA	3 19-22 2018 MONTH DAY YEAR	1	of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	1L PLASTIC BOTTLE	SMALL BOTTLE	BOTTLE	BOTTLE	VOA SET (3 VIALS EA)	WATER	SOLID	HAZ WASTE	
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER					AIR	OTHER		
7782-1		1						X	
- 2		1						X	
- 3		1						X	
- 4		1						X	
- 5		1						X	
- 6		1						X	
- 7		1						X	
- 8		1						X	
- 9		1						X	
- 10		1						X	
- 11		1						X	
- 12		1						X	
- 13		1						X	
- 14		1						X	
- 15		1						X	
- 16		1						X	
- 17		1						X	
- 18		1						X	
- 19		1						X	
- 20		1						X	
- 21		1						X	
- 22		1						X	
- 23		1						X	
↓ 24		1						X	

DESCRIPTION OF SHIPMENT

MODE OF SHIPMENT

100102	CONTAINER(S) CONSISTING OF <u>7</u> CRATE(S)	COMMERCIAL CARRIER _____
<input checked="" type="checkbox"/> ICE CHEST(S): OTHER <u>9</u>	<input checked="" type="checkbox"/> SAMPLER CONVEYED	(SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

(b) (4)	RECEIVED BY	DATE <u>3-23-18</u>	TIME <u>10:15 AM</u>	RECEIVED BY	DATE <u>3-23-18</u>	TIME <u>10:18 AM</u>	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY (PM/SAMPLER)	SEALED	UNSEALED	<input checked="" type="checkbox"/>	SEALED	UNSEALED	<input checked="" type="checkbox"/>	Analyst
SEALED	UNSEALED	<input checked="" type="checkbox"/>		SEALED	UNSEALED	<input checked="" type="checkbox"/>	
RELINQUISHED BY (PM/SAMPLER)	SEALED	UNSEALED	<input checked="" type="checkbox"/>	SEALED	UNSEALED	<input checked="" type="checkbox"/>	
SEALED	UNSEALED	<input checked="" type="checkbox"/>		SEALED	UNSEALED	<input checked="" type="checkbox"/>	
RELINQUISHED BY (PM/SAMPLER)	SEALED	UNSEALED	<input checked="" type="checkbox"/>	SEALED	UNSEALED	<input checked="" type="checkbox"/>	
SEALED	UNSEALED	<input checked="" type="checkbox"/>		SEALED	UNSEALED	<input checked="" type="checkbox"/>	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
TODD PAVIS	TANGLEFOOT LANE SRA	5 19-22 2018 MONTH DAY YEAR	2 of 2

CONTENTS OF SHIPMENT

~~Mr. Temp. Fazikha~~
27 - 3/23/68

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
CONTAINER(S) CONSISTING OF <u>7</u> CRATE(S)	<input type="checkbox"/> COMMERCIAL CARRIER _____
ICE CHEST(S): OTHER <u>9</u>	<input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING AIRBILL NUMBER) _____

PERSONNEL CUSTODY RECORD

RELEASER S [REDACTED]	(b) (4)	DATE 3-23-10	TIME 10:14	RECEIVED BY <i>Moskowitz</i>	DATE 3-23-10	TIME 10:14	REASON FOR CHANGE OF CUSTODY	
							<input type="checkbox"/> SEALED	<input checked="" type="checkbox"/> SEALED
RELINQUISHED BY (PM/SAMPLER)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY	
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY	
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)		DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY	
<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			<input type="checkbox"/> SEALED	<input type="checkbox"/> UNSEALED			

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 1 QC Code: _____ Matrix: Air Tag ID: 7782-1-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start: 3/19/18	13:15
Longitude:		End: 3/29/18	14:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3243
REGULATOR NO.: A0298789-7
PRESSURE: START: -29.5
(psi) STOP: -5

NOTE: SUB-SLAB PORT LOCATED IN STORAGE
ROOM IN BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 2 QC Code: _____ Matrix: Air Tag ID: 7782-2-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/19/18

15:20

Longitude: _____

End: 3/20/18

14:40

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4559

REGULATOR NO.: A0298794-10

PRESSURE (psi): START " -29.5
STOP " 0

NOTE: INDOOR AIR SAMPLE COLLECTED
IN LIVINGROOM ON MAIN FLOOR.

PROPERTY OWNER:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 3 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-3-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/19/19 15:50
Longitude: _____ **End:** 3/20/19 15:20

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER No. : 3247

REGULATOR NO.: A0298496-10

PRESSURE (psi) : START : -29.5
STOP : -5

NOTE: INDOOR AIR SAMPLE COLLECTED
IN NW BASEMENT SITTING ROOM.

PROPERTY OWNER:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 4 QC Code: _____ Matrix: Air Tag ID: 7782-4-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date: _____ Time(24 hr): _____

Latitude: _____

Sample Collection: Start: 3/20/18 08:26

Longitude: _____

End: 3/21/18 08:02

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3250

REGULATOR NO.: A0271055-3

PRESSURE (psi): START: -30

STOP: -0

NOTE: INDOOR AIR SAMPLE COLLECTED IN
WESTERN PORTION OF BASEMENT OF
BELLOW RESIDENCE.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 **Sample Number:** 5 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-5-

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/20/18 08:18
Longitude: _____ **End:** 3/21/18 08:00

Laboratory Analyses:

Container **Preservative** **Holding Time** **Analysis**
 1 - 6 Liter Canister None 60 Days 1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANNISTER NO.: 4565

REGULATOR No.: A02B2486-5

PRESSURE (psi): START: -29.5

5508: -0

NOTE: SUB-SLAB PORT LOCATED IN STORAGE
Room IN WESTERN PORTION OF BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 6 QC Code: _____ Matrix: Air Tag ID: 7782-6-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(AMBIENT AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18 08:52

Longitude: _____

End: 3/21/18 08:04

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3014

REGULATOR NO.: A0289196-1

PRESSURE (psi): START: -30
STOP: -4

NOTE: AMBIENT AIR SAMPLE COLLECTED
ON WESTERN SIDE OF RESIDENCE.

PROPERTY OWNER: _____

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 7 QC Code: _____ Matrix: Air Tag ID: 7782-7-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18 08:39

Longitude: _____

End: 3/21/18 07:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4560

REGULATOR NO.: A02994B6-4

PRESSURE (psi): START: -29

STOP: -4

NOTE: INDOOR AIR SAMPLE COLLECTED IN
STORAGE CLOSET IN WESTERN PORTION
OF EVENT PAVILLION.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 8 QC Code: _____ Matrix: Air Tag ID: 7782-8-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) ~~(SOIL GAS)~~ → (AMBIENT AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)
Latitude: _____ Sample Collection: Start: 3/20/18 09:24
Longitude: _____ End: 3/21/18 08:40

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4562

REGULATOR NO.: A0334482-9

PRESSURE (psi): START: ~29

STOP: ~4

NOTES: AMBIENT AIR SAMPLE COLLECTED
ON BACK DECK OF RESIDENCE.

PROPERTY OWNER: _____

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 9 QC Code: _____ Matrix: Air Tag ID: 7782-9-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR) (SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 3/20/18 09:20

Longitude: _____ End: 3/21/18 08:37

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3000

REGULATOR NO.: A027106Z-10

PRESSURE (ps): START: -27

STOP: -3

NOTES: SOIL GAS PORT LOCATED IN
STORAGE CLOSET IN BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 10 QC Code: _____ Matrix: Air Tag ID: 7782-10-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(AMBIENT AIR) (INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18 09:22

Longitude: _____

End: 3/21/18 08:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2229

REGULATOR NO.: A0106061-5

PRESSURE (psi): START: -27

STOP: -3

NOTES: INDOOR AIR SAMPLE COLLECTED
IN LIVING ROOM ON MAIN FLOOR
OF RESIDENCE.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 11 **QC Code:** __ **Matrix:** Air **Tag ID:** 7782-11-__

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude: _____ **Sample Collection: Start:** 3/20/18 10:17
Longitude: _____ **End:** 3/20/18 09:24

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

Comptee No.: 5032

REGISTRATION NO.: 7352107

Pressure (psi): START: -30

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Notes: SOIL GAS PORT LOCATED NW CORNER OF
BASEMENT IN STORAGE ROOM.

PROPERTY OWNER:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 12 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-12-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/20/18 10:19
Longitude: _____ **End:** 3/21/18 09:26

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CARRIER NO.: L22["] L5203

REGULATOR NO.: A0299486-5

PRESSURE (psi) = START: -30

STOP : - 5

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR OF RESIDENCE

PROPERTY OWNER:

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 13 QC Code: ___ Matrix: Air Tag ID: 7782-13-___

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18

10:46

Longitude: _____

End: 3/21/18

07:38

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: L5197

REGULATOR NO.: A0271059-2

PRESSURE (psi): START: -29.5

STOP: -5

NOTES: SUB-SLAD PORT IN QUILTING ROOM IN BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 14 QC Code: _____ Matrix: Air Tag ID: 7782-14-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18

10:47

Longitude: _____

End: 3/21/18

09:46

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: LS113

REGULATOR NO.: A0271058 - 0

PRESSURE (psi): START: -30

STOP: -5

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 15 QC Code: _____ Matrix: Air Tag ID: 7782-15-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18

12:13

Longitude: _____

End: 3/21/18

11:32

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2220

REGULATOR NO.: A0283642-6

PRESSURE (psi): START: -30

STOP: -2

NOTES: INDOOR AIR SAMPLE COLLECTED IN
RECREATIONAL ROOM IN BASEMENT. OWNER
NOTIFIED START/END OF RADON SYSTEM CURRENTLY
OPERATING IN HOME AFTER TEST BEGAN.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 16 QC Code: _____ Matrix: Air Tag ID: 7782-16-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (SOIL GAS)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/20/18	12:48
Longitude:	_____	End: 3/21/18	11:55

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3025

REGULATOR NO.: A0283641-10

PRESSURE (psi): START: -30

STOP: -7

NOTES: SUB-SLAB PORT LOCATED IN UNFINISHED
STORAGE ROOM IN BASEMENT.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 **Sample Number:** 17 **QC Code:** ___ **Matrix:** Air **Tag ID:** 7782-17-___

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/20/18 12 : 00
Longitude: _____ **End:** 3/21/18 11 : 57

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 651811

REGULATOR NO.: 7273195

PRESSURE (psi) : START: -20.5

5509 : - 4

NOTES: INDOOR AIR SAMPLE COLLECTED IN LIVINGROOM
ON MAIN FLOOR OF RESIDENCE.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 18 QC Code: _____ Matrix: Air Tag ID: 7782-18-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/18 17:18

Longitude: _____

End: 3/21/18 16:49

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: L5200

REGULATOR NO.: A0334074-5³⁹⁴⁻³

PRESSURE (ps.) : START: -29.5

STOP: -4

NOTES: SUB-SLAB PORT IS IN STORAGE ROOM
IN WESTERN PORTION OF BASEMENT

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 19 QC Code: _____ Matrix: Air Tag ID: 7782-19-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/20/10

17:20

Longitude: _____

End: 3/21/10

16:53

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4551

REGULATOR NO.: 126465

PRESSURE (psi): START: -30

STOP: -7

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 20 QC Code: _____ Matrix: Air Tag ID: 7782-20-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (Soil & Gras)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Sample Collection: Start: 3/21/18 14:17

Longitude: _____ End: 3/22/18 13:47

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: R2Z19.

REGULATOR NO.: A0298792-7

PRESSURE (psi): START: ~30
STOP: ~7.5

NOTE: SUB-SLAB PORT LOCATED IN NORTHEAST CORNER OF BASEMENT IN A STORAGE AREA.

PROPERTY OWNERS:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 21 QC Code: _____ Matrix: Air Tag ID: 7782-21-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18 14:20

Longitude: _____

End: 3/22/18 13:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4556

REGULATOR NO.: A0283640-10

PRESSURE (psi): START: -30
STOP: -5

NOTE: INDOOR AIR SAMPLE COLLECTED IN LIVINGROOM
ON MAIN FLOOR OF HOME.

PROPERTY OWNERS:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 22 QC Code: _____ Matrix: Air Tag ID: 7782-22-_____

Project ID: THB7C700 Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(SLAB SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18 14:58

Longitude: _____

End: 3/22/18 14:01

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3002

REGULATOR NO.: A0334866-5

PRESSURE (psi): START: -29.5

STOP: -24

NOTES: SUB-SLAB PORT LOCATED IN STORAGE
CLOSET IN WESTERN PORTION OF BASEMENT.

PROPERTY OWNER :

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 23 QC Code: _____ Matrix: Air Tag ID: 7782-23-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) (INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start: 3/21/18	15:01
Longitude:	_____	End: 3/22/18	14:04

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4568

REGULATOR NO.: A0334874-10

PRESSURE (psi): START: -30

STOP: -3

NOTES: INDOOR AIR SAMPLE COLLECTED IN
LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 24 QC Code: _____ Matrix: Air Tag ID: 7782-24-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(AMBIENT AIR)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18 15:05

Longitude: _____

End: 3/22/18 14:06

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER No.: 3235

REGULATOR No.: A0283640-9

PRESSURE (psi): START: -30

STOP: -5

NOTES: AMBIENT AIR SAMPLE COLLECTED JUST
WEST OF HOUSE.

PROPERTY OWNERS:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 25 QC Code: _____ Matrix: Air Tag ID: 7782-25-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc:

(b) (6)

(SOIL GAS)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18

20
08:47

Longitude: _____

End: 3/22/18

19:53

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 4557

REGULATOR NO.: 7262306

PRESSURE (psi): START: -29

STOP: 0

NOTES: SUB-SLAB PORT LOCATED IN UNFINISHED
PORTION OF BASEMENT.

PROPERTY OWNER:

(b) (6)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 26 QC Code: _____ Matrix: Air Tag ID: 7782-26-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

(INDOOR AIR)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 3/21/18	20:52
Longitude:		End: 3/22/18	19:55

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER NO.: 3017

REGULATOR NO.: A0289193-8

PRESSURE (psi): START: -30

STOP: -1

NOTES: INDOOR AIR SAMPLE COLLECTED
IN LIVING ROOM ON MAIN FLOOR.

PROPERTY OWNER: _____

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 27

QC Code: FB Matrix: Air

Tag ID: 7782-27-FB

3/23/8

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: TRIP BLANK

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/22/18 22:00

Longitude: _____

End: / / : :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

TRIP BLANK SAMPLE

CANISTER NO.: R0499

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 101 QC Code: _____ Matrix: Water Tag ID: 7782-101-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18 10:15

Longitude: _____

End: _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

NOTES: COLLECTED FROM SPICERET ON BACK SIDE OF
HOUSE. NO TREATMENT OF WATER. WELL
APPROX 100'-120' DEEP. DRINKING WATER WELL.

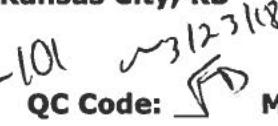
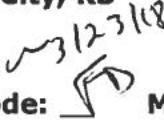
PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 112 QC Code:  Matrix: Water Tag ID: 7782  101-FD

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: 

(b) (6)

External Sample Number:

Expected Conc:

(or Circle One: Low Medium High)

Date

Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/21/18

10:15

Longitude: _____

End: _____

____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

FIELD DUPLICATE SAMPLE

NOTES: COLLECTED FROM SPICKEYT ON BACK SIDE
OF HOUSE. NO TREATMENT OF WATER. WELL
APPROX 100'-120' DEEP. DRINKING WATER WELL.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 102 QC Code: _____ Matrix: Water Tag ID: 7782-102-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start:	3/22/18 : 15
Longitude:		End:	_____:____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
1 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
1 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
3 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
3 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
3 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments: MS/MSD COLLECTED

(N/A)

NOTES : SAMPLE COLLECTED FROM SPICERET NEAR GARAGE. NO TREATMENT OF WATER FROM THIS SPICERET. THIS WELL PROVIDES DRINKING WATER FOR 3 HOMES IN AREA. OWNERS ARE MOVING SOON BUT WILL HAVE MAIL FORWARDED.

PROPERTY OWNER :

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 103 QC Code: _____ Matrix: Water Tag ID: 7782-103-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____

Sample Collection: Start: 3/22/18 12:40

Longitude: _____

End: / / : _____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

NOTES: DRINKING WATER WELL.
COLLECTED SAMPLE FROM RENTAL PROPERTY
NEXT DOOR AT KITCHEN SINK. WHERE OWNER
SAID WATER WAS NOT TREATED. WELL SERVICES
MULTIPLE RESIDENCES.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 **Sample Number:** 104 **QC Code:** _____ **Matrix:** Water **Tag ID:** 7782-104-_____

Project ID: THB7C700

Project Manager: Todd Davis

Project Desc: Tanglefoot Lane - Removal Assessment

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____

Latitude:

Sample Collection: Start: 3/29/18

14.20

Longitude:

End: / /

1

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO ₃ /L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO ₃ to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO ₃ to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

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NOTES: COLLECTED SAMPLE FROM SPICER ON
BACK SIDE OF HOUSE. NO TREATMENT
ON WATER.

PROPERTY OWNER:

Sample Collected By: TT

1 of 1

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 Sample Number: 105 QC Code: _____ Matrix: Water Tag ID: 7782-105-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start: 3/28/16	14:53
Longitude:		End: / /	: :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

DRINKING WATER WELL.

NOTE: COLLECTED SAMPLE FROM SAMPLING SPICKET
IN MECHANICAL ROOM IN BASEMENT. NO WATER
TREATMENT AT SPICKET.

PROPERTY OWNER:

Sample Collected By: TT

(b) (6)

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 106 QC Code: _____ Matrix: Water Tag ID: 7782-106-_____

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		3/22/08	16:40
Longitude:		End: / /	: :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

NOTES: SAMPLE COLLECTED FROM PIPE THAT DISCHARGES INTO A POND IN FRONT YARD. OWNERS DO NOT USE FOR DRINKING WATER.

PROPERTY OWNER :

(b) (6)

Sample Collected By:

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7782 **Sample Number:** 113 **QC Code:** FB **Matrix:** Water **Tag ID:** 7782-113-FB

Project ID: THB7C700 **Project Manager:** Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: Field Blank

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 3/22/18 17:30
Longitude: _____ **End:** / / :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Pesticides in Water by GC/EC
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

FIELD BLANK SAMPLE.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7782 Sample Number: 114 QC Code: FB Matrix: Water Tag ID: 7782-114-FB

Project ID: THB7C700 Project Manager: Todd Davis
Project Desc: Tanglefoot Lane - Removal Assessment
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: LDL VOA/TPH VOA (GRO) Trip Blank sample

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start: 3 / 22 / 18	22 : 00
Longitude:		End: / /	: :

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

Prepared by the LTAB.

TRIP BLANK SAMPLE

Sample Collected By: TT

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 10/02/2018

Subject: Transmittal of Sample Analysis Results for ASR #: 7917

Project ID: MLB7C700

Project Description: Tanglefoot Lane

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Environmental Sciences & Technology Division

To: Melinda Luetke
SUPR/PPNS

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our ENST records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

Project Manager: Melinda Luetke**Org:** SUPR/PPNS**Phone:** 913-551-7961**Project ID:** MLB7C700**Project Desc:** Tanglefoot Lane**Location:** Bettendorf**State:** Iowa**Program:** Superfund**Site Name:** Tanglefoot Lane - SITE EVALUATION/DISPOSITION**Site ID:** B7C7 **Site OU:** 00**Purpose:** Site Characterization**GPRA PRC:** 000DC6

Site Investigation (SI)/Removal Assessment (RA) sampling.

EPA PM (ML)/Sampler noted via emailed ASR dated 6/21/18 that this ASR is not part of a litigation hold activity at this time.

Explanation of Codes, Units and Qualifiers used on this report**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

= Field Sample

ug/m³ = Micrograms per Cubic Meter

FB = Field Blank

ug/L = Micrograms per Liter

mg/L = Milligrams per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

U = The analyte was not detected at or above the reporting limit.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

J = The identification of the analyte is acceptable; the reported value is an estimate.

O = Parameter not analyzed.

ASR Number: 7917

Sample Information Summary

10/02/2018

Project ID: MLB7C700**Project Desc:** Tanglefoot Lane

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -		Air	(b) (6)		08/21/2018	09:45	08/22/2018	09:15	08/24/2018
2 -		Air	(b) (6)		08/21/2018	09:42	08/22/2018	09:14	08/24/2018
3 -		Air	(b) (6)		08/21/2018	10:08	08/22/2018	09:39	08/24/2018
4 -		Air	(b) (6)		08/21/2018	10:06	08/22/2018	09:38	08/24/2018
5 -		Air	(b) (6)		08/21/2018	10:36	08/22/2018	10:03	08/24/2018
6 -		Air	(b) (6)		08/21/2018	10:44	08/22/2018	10:11	08/24/2018
7 -		Air	(b) (6)		08/21/2018	10:45	08/22/2018	10:10	08/24/2018
8 -		Air	(b) (6)		08/21/2018	10:48	08/22/2018	10:09	08/24/2018
9 -		Air	(b) (6)		08/21/2018	11:42	08/22/2018	11:15	08/24/2018
10 -		Air	(b) (6)		08/21/2018	11:45	08/22/2018	11:15	08/24/2018
11 -		Air	(b) (6)		08/21/2018	13:01	08/22/2018	12:33	08/24/2018
12 -		Air	(b) (6)		08/21/2018	12:59	08/22/2018	12:32	08/24/2018
13 -		Air	(b) (6)		08/21/2018	16:14	08/22/2018	16:09	08/24/2018
14 -		Air	(b) (6)		08/21/2018	16:13	08/22/2018	16:08	08/24/2018
15 -		Air	(b) (6)		08/21/2018	16:39	08/22/2018	16:22	08/24/2018
16 -		Air	(b) (6)		08/21/2018	16:30	08/22/2018	16:21	08/24/2018
17 -		Air	(b) (6)		08/22/2018	08:19	08/23/2018	08:02	08/24/2018
18 -		Air	(b) (6)		08/22/2018	08:18	08/23/2018	08:01	08/24/2018
19 -		Air	(b) (6)		08/22/2018	08:20	08/23/2018	08:03	08/24/2018
20 -		Air	(b) (6)		08/22/2018	08:54	08/23/2018	08:21	08/24/2018
21 -		Air	(b) (6)		08/22/2018	10:29	08/23/2018	10:00	08/24/2018
22 -		Air	(b) (6)		08/22/2018	11:00	08/23/2018	10:35	08/24/2018
23 -		Air	(b) (6)		08/22/2018	10:59	08/23/2018	10:35	08/24/2018
24 -		Air	(b) (6)		08/22/2018	11:04	08/23/2018	10:38	08/24/2018
25 -		Air	(b) (6)		08/22/2018	12:57	08/23/2018	12:12	08/24/2018
26 -		Air	(b) (6)		08/22/2018	12:56	08/23/2018	12:11	08/24/2018
27 -		Air	(b) (6)		08/22/2018	15:10	08/23/2018	14:50	08/24/2018
28 -		Air	(b) (6)		08/22/2018	15:10	08/23/2018	14:50	08/24/2018
29 - FB		Air	(b) (6)		08/23/2018	15:00			08/24/2018
101 -		Water	Field Blank sample		08/23/2018	11:10			08/24/2018
102 - FB		Water	Field Blank sample		08/23/2018	12:30			08/24/2018
104 - FB		Water	Water LDL VOA Trip Blank		08/23/2018	12:45			08/24/2018

Analysis	Comments About Results For This Analysis																
1 VOCs in Air Samples	<p>Method: Quantitative Analysis of Air Sample VOC Concentration Levels by GC/MS</p> <p>Lab: Research Laboratory Address: Kansas City, Ks.</p> <p>Method: 3230.4H</p> <p>Sample: 4-28</p> <table><tr><td>4-</td><td>5-</td><td>6-</td><td>7-</td></tr><tr><td>11-</td><td>12-</td><td>13-</td><td>14-</td></tr><tr><td>18-</td><td>19-</td><td>20-</td><td>21-</td></tr><tr><td>25-</td><td>26-</td><td>27-</td><td>28-</td></tr></table> <p>Comments: The sample was received empty (the canister was still under full vacuum). No analysis was performed. Results of 'N/A' were reported with an O-coded.</p> <p>Benzyl Acetate was found in samples 1, 3-28 and 29-FB. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to continuing calibration curve not meeting linearity specifications. The actual concentration may be higher than the reported value.</p> <p>Vinyl Acetate was found in samples 9, 10, 17-19, 23, 24, 26, 27, 28, and 29-FB. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the second source control sample. The actual concentration may be higher than the reported value.</p> <p>Vinyl Acetate was found in samples 1, 3-8, 11-16, 20-22, 25 and 28. Although the analyte has been positively identified in the samples, the quantitation is an estimate (J-coded) due to continuing calibration check not meeting accuracy specifications. The actual concentration for this analyte may be higher than the reported value.</p> <p>Tetrahydrofuran was found in samples 5, 7, 8, 11, 12, 28 and 29-FB. 4-Methyl-2-Pentanone was found in samples 1, 3, 4, 5-9, 11-12, 28 and 29. 2-Hexanone was UJ-coded in samples 1, 3, 4, 5-9, 11-12, 28 and 29-FB. 1,2,4-Trichlorobenzene was UJ-coded in samples 1, 3, 4, 5-9, 11-12, 28 and 29-FB. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are estimated (UJ-coded) due to continuing calibration check not meeting accuracy specifications. The actual reporting limits for these analytes may be higher than the reported value.</p> <p>Tetrahydrofuran was J-coded in samples 1, 3, 4, 6, 9 and 27. 4-Methyl-2-Pentanone was J-coded in samples 1, 3, 4, 27. Although the analytes in question has been positively identified in the samples, the quantitations are estimated (J-coded) due to the continuing calibration check not meeting accuracy specifications. The actual concentration for these analytes may be higher than the reported value.</p> <p>Carbon Tetrachloride was J-coded in samples 1, 3-13, 15-18, 20-22, 24-26, 27. Although the analyte in question has been positively identified in the samples, the quantitation is an estimate (J-coded) due to the continuing calibration check not meeting accuracy</p>	4-	5-	6-	7-	11-	12-	13-	14-	18-	19-	20-	21-	25-	26-	27-	28-
4-	5-	6-	7-														
11-	12-	13-	14-														
18-	19-	20-	21-														
25-	26-	27-	28-														

Analysis	Comments About Results For This Analysis
specific value.	concentration for this analyte may be lower than the reported value.
2,2,4-T	Heptane was UJ-coded in samples 5-8 and 11-12. Heptane was UJ-coded in sample 29-FB. Styrene was UJ-coded in sample 29-FB. These analytes were not found in the samples at or above the reporting limits. Reporting limits are estimated (UJ-coded) due to low laboratory control sample. The actual reporting limit for these analytes is less than the reported value.
2,2,4-T	Heptane was J-coded in samples 4 and 9. Heptane was J-coded in samples 4-9, 11-12, 27 and 28. Styrene was J-coded in sample 29-FB. Although the analytes in question has been positively identified, the quantitations are estimated (J-coded) due to low recovery of these analytes in the laboratory control sample. The actual concentration for these analytes is less than the reported value.
Vinyl C	ole 25. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory control sample. The actual concentration for this analyte is less than the reported value.
1,1,2-T	Chlorobutane, Dibromochloromethane, 1,2-Dibromoethane, 1,1,2,2-Tetrachloroethane, 4-Ethyltoluene, 1,3-Dichloropropane, Benzyl Chloride, 1,2-Dichlorobenzene, 1,2,4-Trichlorobutene and 1,2-Dichloro-1,3-butadiene were UJ-coded in sample 27. These analytes were not found in the samples at or above the reporting limits, however, the reporting limits are estimated based on the internal standard response. The actual reporting limit for these analytes is less than the reported value.
Tetrach	Trimethylbenzene and/or p-Xylene, o-Xylene, Styrene, 1,3,5-Trimethylbenzene were J-coded in sample 27. Although the analytes in question have been positively identified in the sample, the quantitations are estimates based on the internal standard response. The actual concentration for these analytes is less than the reported value.
Aceton	Acetone was J-coded in sample 3. Although the analytes in question have been positively identified in the sample, the quantitations are estimates (J-coded) due to the reported values exceeding the calibrated range of the instrument.
Ethyl Acetate	was J-coded in sample 27. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to poor precision obtained for this analyte in the laboratory duplicate sample.

1 Acid Herbicides in Water by LCMSMS

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3280.1C

Samples: 101- 102-FB

Analysis	Comments About Results For This Analysis
	<p>Comments: None</p>
1 Mercury - Dissolved	<p>Lab: Region 7 EPA Laboratory - Kansas City, Ks.</p> <p>Method: EPA Region 7 RLAB Method 3121.23E applied to field filtered samples for</p>
	<p>Sample:</p> <p>Comments: (N/A)</p>
1 Mercury in Water	<p>Lab: Region 7 EPA Laboratory - Kansas City, Ks.</p> <p>Method: EPA Region 7 RLAB Method 3121.23E</p>
	<p>Sample:</p> <p>Comments: (N/A)</p>
1 Metals - Dissolved	<p>Lab: Region 7 EPA Laboratory - Kansas City, Ks.</p> <p>Method: EPA Region 7 RLAB Method 3123.1E Applied to Field Filtered Samples for</p>
	<p>Sample:</p> <p>Comments:</p>
1 Metals in Water	<p>Lab: Region 7 EPA Laboratory - Kansas City, Ks.</p> <p>Method: EPA Region 7 RLAB Method 3123.1E</p>
	<p>Comments:</p>
1 Pesticides and PCBs in Water by Twister GC/MS	<p>Lab: Region 7 EPA Laboratory - Kansas City, Ks.</p> <p>Method: EPA Region 7 RLAB Method 3230.20D for Pesticides only</p> <p>Samples: 101- 102-FB</p> <p>Comments: Due to linearity problems at the low end of the curve, the reporting limit for B-BHC has</p>

Analysis	Comments About Results For This Analysis
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID	<p>been ran. The reporting limit is 0.001 mg/L.</p> <p>Due to the fact that the initial instrument calibration curve was not performed fresh. A curve from March 2018 was used. The reporting limit is an estimate for Toxaphene. The results for Toxaphene are UJ coded in all samples.</p> <p>Lab: REST Contract Lab (Out-Source) Method: Similar to Modified version of SW846 Method 8015 (see comments) Samples: 101- 102-FB Comments: (N/A)</p>
1 VOCs in Water by GC/MS for Low Detection Limits	<p>benzene, Indeno[1,2,3-<i>h</i>]anthracene, Pentachlorophenol, Dibenz(a,h)anthracene and 2,4-Dinaphthylbenzene were found in samples 101 and 102FB. These analytes were not found in the laboratory method blank at or above the reporting limit, however, the reporting limit is an estimate due to the initial instrument calibration curve not meeting linearity. The actual reporting limit may be higher than the reported values.</p> <p>2,4-Dinaphthylbenzene, Indeno[1,2,3-<i>h</i>]anthracene and Pentachlorophenol were UJ-coded in samples 101 and 102FB. These analytes were not found in the laboratory method blank at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity. The actual reporting limit may be higher than the reported values.</p> <p>Slight traces of Indeno[1,2,3-<i>h</i>]anthracene were found in the laboratory method blank. Only samples containing Indeno[1,2,3-<i>h</i>]anthracene at a level greater than ten times the contamination level of the blank are UJ-coded. All samples that contained this analyte but at a level less than ten times the contamination in the blank have the result U-coded indicating that they were not affected by the level found in the sample. Samples affected were:</p> <p>Benzo(a)anthracene, Benzo(b)anthracene, Benzo(g,h,i)perylene, Di-n-octylphthalate, Indeno[1,2,3-<i>h</i>]anthracene, Pentachlorophenol, and Indeno[1,2,3-<i>h</i>]anthracene were UJ-coded in sample 101. These analytes were not found in the laboratory method blank at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the initial instrument calibration curve not meeting linearity. The actual reporting limit for these analytes may be higher than the reported values.</p> <p>Lab: Region 7 EPA Laboratory - Kansas City, Ks. Method: Similar to Modified version of SW846 Method 8015 (see comments) Samples: 101- 102-FB Comments: (N/A)</p>

Analysis Comments About Results For This Analysis

Method:	3230.13F
Sample:	FB
Comments:	The results for Naphthalene and Acetone were UJ-coded due to the linearities of the calibration curves (2ug/L, 2ug/L and 5ug/L, respectively) due to the reporting limit(s). Chlorofluorocarbons were UJ-coded in samples 101, 102FB and 104FB. These analytes were not found in samples at or above the reporting limit, however, the reporting limit is an estimate (not meeting the actual reporting limit for these analytes may be higher).
1 Volatile TPH in Sediment	Chlorofluorocarbons were UJ-coded in sample 101. These analytes were not found in samples at or above the reporting limit, however, the reporting limit is an estimate (not meeting the actual reporting limit for these analytes in the laboratory matrix spike. The actual reporting limit for these analytes may be higher than the reported value.
Lab: RL	
Method:	C/MS (see comments)
Sample:	
Comments:	(N/A)

ASR Number: 7917

Project ID: MLB7C700

RLAB Approved Sample Analysis Results

10/02/2018

Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	190	N/A O	150 J	150
Allyl Chloride	ug/m3	0.32 U	N/A O	0.32 U	0.32 U
Benzene	ug/m3	6.9	N/A O	1.3	1.3
Benzyl Chloride	ug/m3	4.2 UJ	N/A O	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	N/A O	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	N/A O	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	N/A O	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	N/A O	0.45 U	0.45 U
2-Butanone	ug/m3	29	N/A O	15	15
Carbon Disulfide	ug/m3	0.63 U	N/A O	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.72 J	N/A O	1.2 J	1.2 J
Chlorobenzene	ug/m3	0.93 U	N/A O	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	N/A O	0.53 U	0.53 U
Chloroform	ug/m3	1.8	N/A O	3.8	3.6
Chloromethane	ug/m3	1.9	N/A O	1.7	1.8
Cyclohexane	ug/m3	1.6	N/A O	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	N/A O	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	N/A O	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	N/A O	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	N/A O	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	55	N/A O	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.7	N/A O	2.6	2.5
1,1-Dichloroethane	ug/m3	0.82 U	N/A O	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	3.4	N/A O	0.63	0.52
1,1-Dichloroethene	ug/m3	0.73	N/A O	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	N/A O	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	N/A O	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	N/A O	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	N/A O	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	N/A O	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	N/A O	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	N/A O	0.73 U	0.73 U
Ethyl Acetate	ug/m3	7.2	N/A O	120 J	89
Ethyl Benzene	ug/m3	14	N/A O	2.1	2.1
4-Ethyltoluene	ug/m3	4.4	N/A O	4.0 U	4.0 U
Heptane	ug/m3	6.2	N/A O	1.6	1.6 J
Hexachlorobutadiene	ug/m3	2.2 U	N/A O	2.2 U	2.2 U
Hexane	ug/m3	8.0	N/A O	1.5	1.4
2-Hexanone	ug/m3	1.7 UJ	N/A O	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	N/A O	0.73 U	0.73 U
Methylene Chloride	ug/m3	8.8	N/A O	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	4.3 J	N/A O	4.8 J	4.3 J
2-Propanol	ug/m3	20	N/A O	44	42
Propene	ug/m3	2.6	N/A O	1.1	1.0
Styrene	ug/m3	3.1	N/A O	21	20 J

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Analysis/ Analyte	Units	1-__	2-__	3-__	4-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	N/A O	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.52	N/A O	0.36	0.34
Tetrahydrofuran	ug/m3	6.4 J	N/A O	1.9 J	1.8 J
Toluene	ug/m3	76	N/A O	12	12 J
1,2,4-Trichlorobenzene	ug/m3	1.5 U	N/A O	1.5 U	1.5 UJ
1,1,1-Trichloroethane	ug/m3	1.9	N/A O	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	N/A O	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	N/A O	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	28	N/A O	2.0	2.0
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	N/A O	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	15	N/A O	1.5	1.5
1,3,5-Trimethylbenzene	ug/m3	3.6	N/A O	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	25	N/A O	8.3	7.2 J
Vinyl Acetate	ug/m3	13 J	N/A O	10 J	9.8 J
Vinyl Bromide	ug/m3	0.88 U	N/A O	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	N/A O	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	46	N/A O	6.5	6.4
o-Xylene	ug/m3	16	N/A O	2.2	2.2

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Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	100	88	16	13
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	0.75	0.59	0.81	0.58
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	7.7	17	4.9	1.9 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.66 J	0.84 J	0.42 J	0.64 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	1.6	2.5	8.3	0.13
Chloromethane	ug/m3	1.6	2.1	16	1.3
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	2.8
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	39	3.7	1.0 U	2.6
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.16	0.15	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	1.8	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	9.4	19	1.1 U	1.1 U
Ethyl Benzene	ug/m3	0.88 U	0.88 U	5.9	0.88 U
4-Ethyltoluene	ug/m3	4.0 U	4.0 U	4.0 U	4.0 U
Heptane	ug/m3	0.86 J	0.83 UJ	1.4 J	0.83 UJ
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	1.4	0.71 U	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 UJ	1.7 UJ	1.7 UJ	1.7 UJ
2-Propanol	ug/m3	120	76	0.66	0.50 U
Propene	ug/m3	1.9	0.35 U	0.35 U	0.58
Styrene	ug/m3	1.5 J	0.86 UJ	0.86 UJ	0.86 UJ

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Analysis/ Analyte	Units	5-__	6-__	7-__	8-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	7.1	0.34 U	39	0.34 U
Tetrahydrofuran	ug/m3	0.60 UJ	1.3 J	0.60 UJ	0.60 UJ
Toluene	ug/m3	14 J	3.1 J	14 J	1.4 J
1,2,4-Trichlorobenzene	ug/m3	1.5 UJ	1.5 UJ	1.5 UJ	1.5 UJ
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	11	14	2.2	1.6
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	0.99 U	0.99 U	11	0.99 U
1,3,5-Trimethylbenzene	ug/m3	0.99 U	0.99 U	2.1	0.99 U
2,2,4-Trimethylpentane	ug/m3	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Vinyl Acetate	ug/m3	10 J	12 J	1.4 J	0.85 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	1.8 U	1.8 U	26	1.8 U
o-Xylene	ug/m3	0.88 U	0.88 U	7.7	0.88 U

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	9-	10-	11-	12-
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	94	27	46	46
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	8.8	1.5	0.77	1.1
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	31	4.1	4.2	3.9
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.75 J	0.72 J	0.65 J	0.62 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	0.92	0.28	1.4	0.92
Chloromethane	ug/m3	1.5	0.53	1.4	1.0
Cyclohexane	ug/m3	3.0	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	6.6	9.0	2.4	2.5
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	0.30	0.10 U	1.8	1.2
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	7.5	1.1 U	6.4	4.2
Ethyl Benzene	ug/m3	6.7	5.1	0.88 U	3.5
4-Ethyltoluene	ug/m3	4.0 U	4.0 U	4.0 U	4.0 U
Heptane	ug/m3	5.2 J	1.2	0.83 UJ	1.2 J
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	13	1.5	0.71 U	0.81
2-Hexanone	ug/m3	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	5.8	3.5	2.2	1.4
4-Methyl-2-Pentanone	ug/m3	1.7 UJ	1.7 U	1.7 UJ	1.7 UJ
2-Propanol	ug/m3	32	0.87	5.6	3.6
Propene	ug/m3	2.1	0.58	0.35 U	0.35 U
Styrene	ug/m3	3.8 J	0.86 U	0.86 UJ	0.86 UJ

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Analysis/ Analyte	Units	9-__	10-__	11-__	12-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	10	36	0.34 U	18
Tetrahydrofuran	ug/m3	1.2 J	0.60 U	0.60 UJ	0.60 UJ
Toluene	ug/m3	55 J	18	4.7 J	13 J
1,2,4-Trichlorobenzene	ug/m3	1.5 UJ	1.5 U	1.5 UJ	1.5 UJ
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.8	1.7	1.8	1.7
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	7.6	7.6	0.99 U	3.5
1,3,5-Trimethylbenzene	ug/m3	1.5	1.4	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	5.7 J	1.0 U	1.0 UJ	1.0 UJ
Vinyl Acetate	ug/m3	0.72 UJ	0.72 UJ	2.7 J	2.2 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	25	22	1.8 U	13
o-Xylene	ug/m3	8.0	6.5	0.88 U	3.9

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	720	65	65	11
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	1.4	0.57	1.1	0.94
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	27	4.0	7.1	2.2
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.85	0.92
Carbon Tetrachloride	ug/m3	0.75 J	0.32 U	0.69 J	0.69 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	2.9	0.54	2.3	2.2
Chloromethane	ug/m3	1.4	0.42 U	1.9	0.92
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.2	1.0 U	2.4	2.6
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	2.1	0.14	0.45	0.43
1,1-Dichloroethene	ug/m3	0.86	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	19	1.1 U	13	1.1 U
Ethyl Benzene	ug/m3	0.88 U	3.8	0.88 U	5.6
4-Ethyltoluene	ug/m3	4.0 U	4.0 U	4.0 U	4.0 U
Heptane	ug/m3	0.83 U	0.83 U	0.83 U	1.4
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	1.3	0.71 U	0.71	0.77
2-Hexanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	8.5	1.2	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	3.7	1.7 U
2-Propanol	ug/m3	10	0.63	4.7	0.50 U
Propene	ug/m3	3.9	0.35 U	1.8	2.3
Styrene	ug/m3	0.86 U	0.86 U	1.2	0.86 U

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Analysis/ Analyte	Units	13-__	14-__	15-__	16-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	32	0.37	1100
Tetrahydrofuran	ug/m3	5.8	0.60 U	1.7	0.60 U
Toluene	ug/m3	8.1	9.7	5.2	12
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.5	1.4	1.6	1.6
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	1.7	6.3	0.99 U	11
1,3,5-Trimethylbenzene	ug/m3	0.99 U	1.2	0.99 U	2.1
2,2,4-Trimethylpentane	ug/m3	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Acetate	ug/m3	3.6 J	0.83 J	5.8 J	1.0 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	2.3	17	1.8	25
o-Xylene	ug/m3	1.1	5.0	0.88 U	7.5

ASR Number: 7917

Project ID: MLB7C700

RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	17-	18-	19-	20-
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	200	11	15	44
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	9.1	0.75	1.0	1.3
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	34	1.9 U	3.8	8.7
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.62 J	0.58 J	0.32 U	0.61 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	2.2	0.24	0.12 U	1.0
Chloromethane	ug/m3	1.6	1.2	0.42 U	1.5
Cyclohexane	ug/m3	7.2	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	1.8	2.5	1.0 U	2.4
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	9.8	0.10 U	0.10 U	0.17
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	67	1.1 U	1.1 U	8.4
Ethyl Benzene	ug/m3	13	0.88 U	1.2	0.88 U
4-Ethyltoluene	ug/m3	4.0 U	4.0 U	4.0 U	4.0 U
Heptane	ug/m3	10	0.83 U	1.4	0.89
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	23	0.89	1.2	2.2
2-Hexanone	ug/m3	2.1	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	3.2	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	2.7	1.7 U	1.7 U	1.7 U
2-Propanol	ug/m3	70	0.59	4.6	12
Propene	ug/m3	2.9	0.63	0.35 U	1.8
Styrene	ug/m3	1.8	0.86 U	3.9	0.86 U

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	17-__	18-__	19-__	20-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.34 U	0.34 U	0.61
Tetrahydrofuran	ug/m3	15	0.60 U	0.60 U	8.6
Toluene	ug/m3	47	2.3	21	10
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	15	1.5	1.1 U	1.6
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	9.9	0.99 U	1.8	0.99 U
1,3,5-Trimethylbenzene	ug/m3	2.3	0.99 U	0.99 U	0.99 U
2,2,4-Trimethylpentane	ug/m3	6.0	1.0 U	10	1.1
Vinyl Acetate	ug/m3	0.72 UJ	0.72 UJ	0.72 UJ	4.8 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	46	1.8 U	5.1	2.3
o-Xylene	ug/m3	13	0.88 U	1.8	0.88 U

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RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	21-	22-	23-	24-
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	61	70	7.7	8.7
Allyl Chloride	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
Benzene	ug/m3	2.3	0.65	0.50	0.48
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.96	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	7.6	6.3	1.9 U	1.9 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U
Carbon Tetrachloride	ug/m3	0.72 J	0.70 J	0.32 U	0.60 J
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	1.7	0.39	0.12 U	0.19
Chloromethane	ug/m3	3.3	1.4	0.42 U	1.2
Cyclohexane	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 U	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	ug/m3	2.0	2.4	1.0 U	2.6
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	1.2	5.1	0.10 U	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	3.8	43	1.1 U	1.1 U
Ethyl Benzene	ug/m3	1.2	0.88 U	4.0	0.88 U
4-Ethyltoluene	ug/m3	4.0 U	4.0 U	4.0 U	4.0 U
Heptane	ug/m3	0.97	0.83 U	0.96	0.83 U
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U
Hexane	ug/m3	1.9	0.94	0.71 U	0.71 U
2-Hexanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	0.70 U	0.70 U	0.70 U	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.7 U	1.7 U	1.7 U
2-Propanol	ug/m3	210	17	0.50 U	0.50 U
Propene	ug/m3	6.6	3.1	0.35 U	0.45
Styrene	ug/m3	1.2	0.86 U	0.86 U	0.86 U

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Analysis/ Analyte	Units	21-__	22-__	23-__	24-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	ug/m3	0.34 U	0.44	23	0.34 U
Tetrahydrofuran	ug/m3	0.60 U	0.60 U	0.60 U	0.60 U
Toluene	ug/m3	9.3	4.7	8.6	4.3
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	3.3	2.4	1.8	1.5
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	1.6	0.99 U	8.8	0.99 U
1,3,5-Trimethylbenzene	ug/m3	0.99 U	0.99 U	1.7	0.99 U
2,2,4-Trimethylpentane	ug/m3	1.2	1.0 U	1.0 U	1.0 U
Vinyl Acetate	ug/m3	6.9 J	3.8 J	0.72 UJ	0.72 UJ
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	4.5	1.8 U	18	1.8 U
o-Xylene	ug/m3	1.4	0.88 U	6.1	0.88 U

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RLAB Approved Sample Analysis Results

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Project Desc: Tanglefoot Lane

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	92	75	290	13
Allyl Chloride	ug/m3	0.32 U	0.32 U	9.6	0.32 U
Benzene	ug/m3	0.90	4.5	8.5	0.48
Benzyl Chloride	ug/m3	4.2 UJ	4.2 UJ	4.2 UJ	4.2 UJ
Bromodichloromethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Bromoform	ug/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.78 U	0.78 U
1,3-Butadiene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
2-Butanone	ug/m3	6.9	4.5	11	1.9 U
Carbon Disulfide	ug/m3	0.63 U	0.63 U	1.4	0.63 U
Carbon Tetrachloride	ug/m3	0.66 J	0.32 J	0.71 J	0.32 U
Chlorobenzene	ug/m3	0.93 U	0.93 U	0.93 UJ	0.93 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	ug/m3	1.6	0.26	3.2	25
Chloromethane	ug/m3	1.8	0.60	2.5	0.42 U
Cyclohexane	ug/m3	0.70 U	4.6	8.4	0.70 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	1.7 UJ	1.7 U
1,2-Dibromoethane	ug/m3	1.6 U	1.6 U	1.6 UJ	1.6 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 UJ	1.2 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 UJ	1.2 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 U	1.2 UJ	1.2 U
Dichlorodifluoromethane	ug/m3	2.4	1.0 U	2.2	1.0 U
1,1-Dichloroethane	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
1,2-Dichloroethane	ug/m3	1.8	0.20	0.41	0.10 U
1,1-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	ug/m3	0.93 U	0.93 U	0.93 U	0.93 U
cis-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
trans-1,3-Dichloropropene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,4-Dioxane	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Ethyl Acetate	ug/m3	8.7	1.1 U	85 J	1.8
Ethyl Benzene	ug/m3	1.4	9.7	8.4 J	3.2
4-Ethyltoluene	ug/m3	4.0 U	4.8	4.0 UJ	4.0 U
Heptane	ug/m3	0.83 U	12	10	0.89
Hexachlorobutadiene	ug/m3	2.2 U	2.2 U	2.2 UJ	2.2 U
Hexane	ug/m3	0.82	12	28	0.71 U
2-Hexanone	ug/m3	1.7 U	1.7 U	1.7 UJ	1.7 UJ
Methyl tert-butyl ether	ug/m3	0.73 U	0.73 U	0.73 U	0.73 U
Methylene Chloride	ug/m3	1.6	0.70 U	2.4	0.70 U
4-Methyl-2-Pentanone	ug/m3	1.7 U	1.9	4.0 J	1.7 UJ
2-Propanol	ug/m3	72	2.4	28	0.50 U
Propene	ug/m3	1.4	0.35 U	4.8	0.35 U
Styrene	ug/m3	2.1	0.86 U	1.8 J	0.86 U

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	25-__	26-__	27-__	28-__
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 U	1.4 UJ	1.4 U
Tetrachloroethene	ug/m3	0.34 U	12	7.2 J	20
Tetrahydrofuran	ug/m3	3.3	0.60 U	0.67 J	0.60 UJ
Toluene	ug/m3	8.5	49	42 J	6.5 J
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 UJ	1.5 UJ
1,1,1-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 U	1.1 UJ	1.1 U
Trichloroethene	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	ug/m3	1.8	1.6	1.8	1.5
1,1,2-Trichlorotrifluoroethane	ug/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	1.0	18	8.9 J	7.5
1,3,5-Trimethylbenzene	ug/m3	0.99 U	3.6	2.5 J	1.4
2,2,4-Trimethylpentane	ug/m3	1.2	9.1	25	1.0 U
Vinyl Acetate	ug/m3	5.0 J	0.72 UJ	0.72 UJ	1.2 J
Vinyl Bromide	ug/m3	0.88 U	0.88 U	0.88 U	0.88 U
Vinyl Chloride	ug/m3	0.15 J	0.13 U	0.13 U	0.13 U
m and/or p-Xylene	ug/m3	3.2	39	30 J	14
o-Xylene	ug/m3	1.3	14	11 J	5.0

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS					
Acetone	ug/m3	0.96 U			
Allyl Chloride	ug/m3	0.32 U			
Benzene	ug/m3	0.16 U			
Benzyl Chloride	ug/m3	4.2 UJ			
Bromodichloromethane	ug/m3	1.4 U			
Bromoform	ug/m3	2.1 U			
Bromomethane	ug/m3	0.78 U			
1,3-Butadiene	ug/m3	0.45 U			
2-Butanone	ug/m3	1.9 U			
Carbon Disulfide	ug/m3	0.63 U			
Carbon Tetrachloride	ug/m3	0.32 U			
Chlorobenzene	ug/m3	0.93 U			
Chloroethane	ug/m3	0.53 U			
Chloroform	ug/m3	0.12 U			
Chloromethane	ug/m3	0.42 U			
Cyclohexane	ug/m3	0.70 U			
Dibromochloromethane	ug/m3	1.7 U			
1,2-Dibromoethane	ug/m3	1.6 U			
1,2-Dichlorobenzene	ug/m3	1.2 U			
1,3-Dichlorobenzene	ug/m3	1.2 U			
1,4-Dichlorobenzene	ug/m3	1.2 U			
Dichlorodifluoromethane	ug/m3	1.0 U			
1,1-Dichloroethane	ug/m3	0.82 U			
1,2-Dichloroethane	ug/m3	0.10 U			
1,1-Dichloroethene	ug/m3	0.20 U			
cis-1,2-Dichloroethene	ug/m3	0.20 U			
trans-1,2-Dichloroethene	ug/m3	0.20 U			
1,2-Dichloropropane	ug/m3	0.93 U			
cis-1,3-Dichloropropene	ug/m3	0.46 U			
trans-1,3-Dichloropropene	ug/m3	0.46 U			
1,2-Dichlorotetrafluoroethane	ug/m3	1.4 U			
1,4-Dioxane	ug/m3	0.73 U			
Ethyl Acetate	ug/m3	1.1 U			
Ethyl Benzene	ug/m3	0.88 U			
4-Ethyltoluene	ug/m3	4.0 U			
Heptane	ug/m3	0.83 U			
Hexachlorobutadiene	ug/m3	2.2 U			
Hexane	ug/m3	0.71 U			
2-Hexanone	ug/m3	1.7 UJ			
Methyl tert-butyl ether	ug/m3	0.73 U			
Methylene Chloride	ug/m3	0.70 U			
4-Methyl-2-Pentanone	ug/m3	1.7 UJ			
2-Propanol	ug/m3	0.50 U			
Propene	ug/m3	0.35 U			
Styrene	ug/m3	0.86 U			

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
1,1,2,2-Tetrachloroethane	ug/m3		1.4 U		
Tetrachloroethene	ug/m3		0.34 U		
Tetrahydrofuran	ug/m3		0.60 UJ		
Toluene	ug/m3		0.76 UJ		
1,2,4-Trichlorobenzene	ug/m3		1.5 UJ		
1,1,1-Trichloroethane	ug/m3		1.1 U		
1,1,2-Trichloroethane	ug/m3		1.1 U		
Trichloroethene	ug/m3		0.27 U		
Trichlorofluoromethane	ug/m3		1.1 U		
1,1,2-Trichlorotrifluoroethane	ug/m3		1.5 U		
1,2,4-Trimethylbenzene	ug/m3		0.99 U		
1,3,5-Trimethylbenzene	ug/m3		0.99 U		
2,2,4-Trimethylpentane	ug/m3		1.0 U		
Vinyl Acetate	ug/m3		0.72 UJ		
Vinyl Bromide	ug/m3		0.88 U		
Vinyl Chloride	ug/m3		0.13 U		
m and/or p-Xylene	ug/m3		1.8 U		
o-Xylene	ug/m3		0.88 U		
1 Acid Herbicides in Water by LCMSMS					
2,4,5-T	ug/L		0.050 U	0.050 U	
2,4,5-TP	ug/L		0.050 U	0.050 U	
2,4-D	ug/L		0.050 U	0.050 U	
Dicamba	ug/L		0.050 U	0.050 U	
Dichlorprop	ug/L		0.050 U	0.050 U	
Pentachlorophenol	ug/L		0.050 U	0.050 U	
Triclopyr	ug/L		0.050 U	0.050 U	
1 Mercury - Dissolved, in Water					
Mercury	ug/L		0.250 U	0.250 U	
1 Mercury in Water					
Mercury	ug/L		0.250 U	0.250 U	
1 Metals - Dissolved, in Water by ICP/MS					
Antimony	ug/L		2.0 U	2.0 U	
Arsenic	ug/L		1.0 U	1.0 U	
Barium	ug/L		293	5.0 U	
Beryllium	ug/L		1.0 U	1.0 U	
Cadmium	ug/L		1.0 U	1.0 U	
Chromium	ug/L		5.4	2.0 U	
Cobalt	ug/L		1.0 U	1.0 U	
Copper	ug/L		12.7	2.0 U	
Lead	ug/L		3.5	1.0 U	
Manganese	ug/L		130	1.0 U	
Nickel	ug/L		5.5	1.0 U	
Selenium	ug/L		5.0 U	5.0 U	
Silver	ug/L		1.0 U	1.0 U	
Thallium	ug/L		1.0 U	1.0 U	

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
Vanadium	ug/L		1.0 U	1.0 U	
Zinc	ug/L		19.5	3.3	
1 Metals in Water by ICP/MS					
Antimony	ug/L		2.0 U	2.0 U	
Arsenic	ug/L		1.0 U	1.0 U	
Barium	ug/L		306	5.0 U	
Beryllium	ug/L		1.0 U	1.0 U	
Cadmium	ug/L		1.0 U	1.0 U	
Chromium	ug/L		2.0 U	2.0 U	
Cobalt	ug/L		1.0 U	1.0 U	
Copper	ug/L		10.9	2.0 U	
Lead	ug/L		2.5	1.0 U	
Manganese	ug/L		141	1.0 U	
Nickel	ug/L		5.3	1.0 U	
Selenium	ug/L		5.0 U	5.0 U	
Silver	ug/L		1.0 U	1.0 U	
Thallium	ug/L		1.0 U	1.0 U	
Vanadium	ug/L		1.0 U	1.0 U	
Zinc	ug/L		8.2	2.0 U	
1 Pesticides and PCBs in Water by Twister GC/MS					
Aldrin	ug/L		0.020 U	0.020 U	
Aroclor 1221	ug/L		0.25 U	0.25 U	
Aroclor 1232	ug/L		0.25 U	0.25 U	
Aroclor 1242	ug/L		0.25 U	0.25 U	
Aroclor 1248	ug/L		0.25 U	0.25 U	
Aroclor 1254	ug/L		0.25 U	0.25 U	
Aroclor 1260	ug/L		0.25 U	0.25 U	
A-BHC	ug/L		0.020 U	0.020 U	
B-BHC	ug/L		0.10 U	0.10 U	
D-BHC	ug/L		0.050 U	0.050 U	
G-BHC	ug/L		0.020 U	0.020 U	
cis-Chlordane	ug/L		0.020 U	0.020 U	
Chlordane, technical	ug/L		0.20 U	0.20 U	
trans-Chlordane	ug/L		0.020 U	0.020 U	
p,p'-DDD	ug/L		0.020 U	0.020 U	
p,p'-DDE	ug/L		0.020 U	0.020 U	
p,p'-DDT	ug/L		0.020 U	0.020 U	
Dieldrin	ug/L		0.020 U	0.020 U	
Endosulfan I	ug/L		0.020 U	0.020 U	
Endosulfan II	ug/L		0.020 U	0.020 U	
Endosulfan Sulfate	ug/L		0.020 U	0.020 U	
Endrin	ug/L		0.020 U	0.020 U	
Endrin Aldehyde	ug/L		0.10 U	0.10 U	
Endrin Ketone	ug/L		0.020 U	0.020 U	
Heptachlor	ug/L		0.020 U	0.020 U	

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
Heptachlor Epoxide	ug/L		0.020 U	0.020 U	
p,p'-Methoxychlor	ug/L		0.020 U	0.020 U	
Toxaphene	ug/L		1.0 UJ	1.0 UJ	
1 Semi-Volatile Organic Compounds in Water					
Acenaphthene	ug/L		2.0 U	2.0 U	
Acenaphthylene	ug/L		2.0 U	2.0 U	
Anthracene	ug/L		2.0 U	2.0 U	
Benzo(a)anthracene	ug/L		2.0 U	2.0 U	
Benzo(a)pyrene	ug/L		2.0 U	2.0 U	
Benzo(b)fluoranthene	ug/L		2.0 UJ	2.0 U	
Benzo(g,h,i)perylene	ug/L		2.0 UJ	2.0 U	
Benzo(k)fluoranthene	ug/L		2.0 UJ	2.0 U	
Benzoic acid	ug/L		10 UJ	10 UJ	
Benzyl alcohol	ug/L		5.0 U	5.0 U	
bis(2-Chloroethoxy)methane	ug/L		2.0 U	2.0 U	
bis(2-Chloroethyl)ether	ug/L		2.0 U	2.0 U	
bis(2-Chloroisopropyl)ether	ug/L		2.0 U	2.0 U	
bis(2-Ethylhexyl)phthalate	ug/L		5.0 U	5.0 U	
4-Bromophenyl-phenylether	ug/L		2.0 U	2.0 U	
Butylbenzylphthalate	ug/L		5.0 U	5.0 U	
Carbazole	ug/L		5.0 U	5.0 U	
4-Chloro-3-methylphenol	ug/L		5.0 U	5.0 U	
4-Chloroaniline	ug/L		10 U	10 U	
2-Chloronaphthalene	ug/L		2.0 U	2.0 U	
2-Chlorophenol	ug/L		5.0 U	5.0 U	
4-Chlorophenyl-phenylether	ug/L		2.0 U	2.0 U	
Chrysene	ug/L		2.0 U	2.0 U	
Di-n-butylphthalate	ug/L		5.0 U	5.0 U	
Di-n-octylphthalate	ug/L		5.0 UJ	5.0 U	
Dibenz(a,h)anthracene	ug/L		2.0 UJ	2.0 UJ	
Dibenzofuran	ug/L		2.0 U	2.0 U	
1,2-Dichlorobenzene	ug/L		2.0 U	2.0 U	
1,3-Dichlorobenzene	ug/L		2.0 U	2.0 U	
1,4-Dichlorobenzene	ug/L		2.0 U	2.0 U	
3,3'-Dichlorobenzidine	ug/L		10 U	10 U	
2,4-Dichlorophenol	ug/L		5.0 U	5.0 U	
Diethylphthalate	ug/L		2.0 U	2.0 U	
2,4-Dimethylphenol	ug/L		2.0 U	2.0 U	
Dimethylphthalate	ug/L		2.0 U	2.0 U	
4,6-Dinitro-2-methylphenol	ug/L		10 U	10 U	
2,4-Dinitrophenol	ug/L		10 UJ	10 UJ	
2,4-Dinitrotoluene	ug/L		2.0 U	2.0 U	
2,6-Dinitrotoluene	ug/L		2.0 U	2.0 U	
Fluoranthene	ug/L		2.0 U	2.0 U	
Fluorene	ug/L		2.0 U	2.0 U	

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
Hexachlorobenzene	ug/L		2.0 U	2.0 U	
Hexachlorobutadiene	ug/L		2.0 U	2.0 U	
Hexachlorocyclopentadiene	ug/L		2.0 U	2.0 U	
Hexachloroethane	ug/L		2.0 U	2.0 U	
Indeno(1,2,3-cd)pyrene	ug/L		2.0 UJ	2.0 UJ	
Isophorone	ug/L		3.9 U	4.4 U	
2-Methylnaphthalene	ug/L		2.0 U	2.0 U	
2-Methylphenol	ug/L		5.0 U	5.0 U	
4-Methylphenol	ug/L		5.0 U	5.0 U	
Naphthalene	ug/L		2.0 U	2.0 U	
2-Nitroaniline	ug/L		5.0 U	5.0 U	
3-Nitroaniline	ug/L		5.0 U	5.0 U	
4-Nitroaniline	ug/L		10 U	10 U	
Nitrobenzene	ug/L		2.0 U	2.0 U	
2-Nitrophenol	ug/L		5.0 U	5.0 U	
4-Nitrophenol	ug/L		10 U	10 U	
N-nitroso-di-n-propylamine	ug/L		5.0 U	5.0 U	
N-nitrosodiphenylamine	ug/L		2.0 U	2.0 U	
Pentachlorophenol	ug/L		5.0 UJ	5.0 UJ	
Phanthrene	ug/L		2.0 U	2.0 U	
Phenol	ug/L		2.0 U	2.0 U	
Pyrene	ug/L		2.0 U	2.0 U	
1,2,4-Trichlorobenzene	ug/L		2.0 U	2.0 U	
2,4,5-Trichlorophenol	ug/L		5.0 U	5.0 U	
2,4,6-Trichlorophenol	ug/L		5.0 U	5.0 U	
1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID					
TPH DRO	mg/L		0.5 U	0.5 U	
TPH ORO	mg/L		2 U	2 U	
1 VOCs in Water by GC/MS for Low Detection Limits					
Acetone	ug/L		5.0 UJ	5.0 UJ	5.0 UJ
Benzene	ug/L		1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L		1.0 U	1.0 U	1.0 U
Bromoform	ug/L		1.0 U	1.0 U	1.0 U
Bromomethane	ug/L		1.0 U	1.0 U	1.0 U
2-Butanone	ug/L		5.0 UJ	5.0 UJ	5.0 UJ
Carbon Disulfide	ug/L		1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	ug/L		1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
Chloroethane	ug/L		1.0 U	1.0 U	1.0 U
Chloroform	ug/L		1.0 UJ	1.2	1.0 U
Chloromethane	ug/L		1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	ug/L		5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	ug/L		1.0 U	1.0 U	1.0 U

ASR Number: 7917**Project ID:** MLB7C700**RLAB Approved Sample Analysis Results****10/02/2018****Project Desc:** Tanglefoot Lane

Analysis/ Analyte	Units	29-FB	101-__	102-FB	104-FB
1,2-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	ug/L		1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L		1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L		1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L		2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	ug/L		2.0 U	2.0 U	2.0 U
Ethyl Benzene	ug/L		1.0 U	1.0 U	1.0 U
2-Hexanone	ug/L	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Isopropylbenzene	ug/L		1.0 U	1.0 U	1.0 U
Methyl Acetate	ug/L		5.0 U	5.0 U	5.0 U
Methyl tert-butyl ether	ug/L		1.0 U	1.0 U	1.0 U
Methylcyclohexane	ug/L		1.0 U	1.0 U	1.0 U
Methylene Chloride	ug/L		1.0 U	1.0 U	1.0 U
4-Methyl-2-Pentanone	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U
Naphthalene	ug/L		5.0 U	5.0 U	5.0 U
Styrene	ug/L		1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L		1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L		1.0 U	1.0 U	1.0 U
Toluene	ug/L		1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L		1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	ug/L		1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L		1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L		1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	ug/L		1.0 U	1.0 U	1.0 U
1,1,2-Trichlorotrifluoroethane	ug/L		1.0 U	1.0 U	1.0 U
Vinyl Chloride	ug/L		1.0 U	1.0 U	1.0 U
m and/or p-Xylene	ug/L		2.0 U	2.0 U	2.0 U
o-Xylene	ug/L		1.0 U	1.0 U	1.0 U
1 Volatile TPH in Water by GC/MS					
TPH GRO	mg/L		0.04 U	0.04 U	

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print)	SITE OR SAMPLING EVENT	DATE OF SAMPLE COLLECTION(S)	SHEET
MELINDA LUETKE	TANGLEFOOT LANE SIRA	8 21-23 2018 MONTH DAY YEAR	1 of 2

CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA			RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	1L PLASTIC BOTTLE	1/2 PINT BOTTLE	BOTTLE	BOTTLE	WATER	SOLID	HAZ WASTE	
	NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER				AIR	OTHER		
-7917- 1		1				X		
-2		1				X		
-3		1				X		
-4		1				X		
-5		1				X		
-6		1				X		
-7		1				X		
-8		1				X		
-9		1				X		
-10		1				X		
-11		1				X		
-12		1				X		
-13		1				X		
-14		1				X		
-15		1				X		
-16		1				X		
-17		1				X		
-18		1				X		
-19		1				X		
-20		1				X		
-21		1				X		
-22		1				X		
-23		1				X		
-24		1				X		

DESCRIPTION OF SHIPMENT

MODE OF SHIPMENT

CONTAINER(S) CONSISTING OF <u>7</u> CRATE(S)	COMMERCIAL CARRIER _____
ICE CHEST(S): OTHER <u>2 TOTAL</u>	<input checked="" type="checkbox"/> SAMPLER CONVEYED _____ (SHIPPING AIRBILL NUMBER)

PERSONNEL CUSTODY RECORD

(b) (4)	DATE 8-31-18	TIME 1020	RECEIVED BY <i>Melinda Luetke</i>	DATE 8-31-18	TIME 1020	REASON FOR CHANGE OF CUSTODY <i>Analyst</i>
	SEALED	UNSEALED	<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED	UNSEALED		<input type="checkbox"/> SEALED <input checked="" type="checkbox"/> UNSEALED			

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

EPA PROJECT MANAGER (Print) MELINDA LUETKE	SITE OR SAMPLING EVENT TANGLEFOOT LANE SIRA	DATE OF SAMPLE COLLECTION(S) 8 21-23 2018 MONTH DAY YEAR	SHEET 2 of 2
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CONTENTS OF SHIPMENT

ASR AND SAMPLE NUMBER	TYPE OF CONTAINERS				SAMPLED MEDIA				RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)	
	1 L PLASTIC BOTTLE	1 SWIMMA BOTTLE	20 OZ GLASS BOTTLE	10 VIAL BOTTLE	VOA SET (3 VIALS EA)	WATER	SOLID	HAZ WASTE	AIR	
NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER										
-7917 - 25		1						X		
- 26		1						X		
- 27		1						X		
- 28		1						X		
-29-FB		1						X		
-101	2		4	1	96	X				please air bubbles in almost all vials - 8/24/18
-102-FB	2		2	1	2	X				
↓ -104-FB					1	X				
<i>ASP COMPLETE</i>										

(b) (4)

8-24-2018
Cler. Temp. Rec'd
bkt. 2 - 40

DESCRIPTION OF SHIPMENT				MODE OF SHIPMENT 8/24/18			
CONTAINER(S) CONSISTING OF 7 CRATE(S)				COMMERCIAL CARRIER			
ICE CHEST(S): OTHER 2 TOTAL				<input checked="" type="checkbox"/> SAMPLER CONVEYED (SHIPPING AIRBILL NUMBER)			

PERSONNEL CUSTODY RECORD

(b) (4)	DATE 8-24-18	TIME 1020	RECEIVED BY <i>Melinda Luetke</i>	DATE 8/24/18	TIME 1020A	REASON FOR CHANGE OF CUSTODY <i>Analyze</i>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED	<input type="checkbox"/>	<input type="checkbox"/>	
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			
RELINQUISHED BY (PM/SAMPLER)	DATE	TIME	RECEIVED BY	DATE	TIME	REASON FOR CHANGE OF CUSTODY
SEALED UNSEALED			<input type="checkbox"/> SEALED <input type="checkbox"/> UNSEALED			

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 1 QC Code: _____ Matrix: Air Tag ID: 7917-1-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 0/21/18	09:45
Longitude:		End: 0/22/18	09:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

FIRST FLOOR LIVING ROOM

REGULATOR ID: A027 1062-10

CANISTER ID: 3261

PRESSURE: START: -29 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 2 QC Code: _____ Matrix: Air Tag ID: 7917-2-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] - Sub-Slab

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		8/21/18	09:42
Longitude:		8/22/18	09:14

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

WESTERN CORNER OF BASEMENT.

REGULATOR ID: 129903-7277160

CANISTER ID: L5196

PRESSURE: START: -28 "Hg

STOP: -28 "Hg

NOTE: MOISTURE FOUND IN SUB-SLAB PORT
LINE. MOST LIKELY CAUSED BY HIGH
GROUNDWATER LEVELS DUE TO HEAVY

Sample Collected By: TT RAIN IN THE AREA THIS WEEK.

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 3 QC Code: _____ Matrix: Air Tag ID: 7917-3-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:08
Longitude:		End: 8/22/18	09:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

1ST FLOOR LIVINGROOM

CANISTER ID: L5207

REGULATOR ID: 128510-7273159

PRESSURE: STAR: -29 "Hg
STOP: -3.5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 4 QC Code: _____ Matrix: Air Tag ID: 7917-4-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] - [REDACTED] - [REDACTED] INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:06
Longitude:		End: 8/22/18	01:38

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) BASEMENT IN QUILTING ROOM.

CANISTER ID: 16979

REGULATOR ID: A0282406-5.

PRESSURE: START: -30 "Hg

STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 5 QC Code: _____ Matrix: Air Tag ID: 7917-5-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:36
Longitude:		End: 8/22/18	10:03

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

PAVILION STORAGE ROOM.

CANISTER ID: 15112

REGULATOR ID: A0283642-7

PRESSURE: START: - 30 "Hg

STOP: - 6 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 6 QC Code: _____ Matrix: Air Tag ID: 7917-6-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] (b) (6) [REDACTED] - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Sample Collection: Start: 8/21/18	10:44
Longitude:		End: 8/22/18	10:51

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT SW CORNER ROOM OF RESIDENCE.

CANISTER ID: 3013

REGULATOR ID: A0299485-10

PRESSURE: START: -29.5 "Hg

slope: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 **Sample Number:** 7 **QC Code:** **Matrix:** Air **Tag ID:** 7917-7-

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) - SUB-SLAB

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 8/21/18 10:45
Longitude: _____ **End:** 8/22/18 10:10

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT SW STORAGE ROOM, OF RESIDENCE.

CANISTER ID: R2214

REGULATOR ID: A029 8789-7

PRESSURE: START: -30 " Hg

STOP: - 6 "I-1g

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 8 QC Code: _____ Matrix: Air Tag ID: 7917-8-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] (b) (6) - EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	10:40
Longitude:		End: 8/22/18	10:09

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

WEST SIDE OF RESIDENCE.

CANISTER ID : 5024

REGULATOR ID : A0299486-5

PRESSURE : START: -29 "Hg

STOP: -.5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 9 QC Code: _____ Matrix: Air Tag ID: 7917-9-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	11:42
Longitude:		End: 8/22/18	11:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) FIRST FLOOR LIVING ROOM.

CANISTER ID: 3032

REGULATOR ID: A0334387-3

PRESSURE: START: -29.5 "Hg"
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 10 QC Code: _____ Matrix: Air Tag ID: 7917-10-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **(b) (6)** Sub-Slab

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/21/18	11:45
Longitude:	_____	End: 8/22/18	11:15

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A) NE CORNER OF BASEMENT IN STORAGE ROOM.

CANISTER ID: 3025

REGULATOR ID: 128697-7273195

PRESSURE: START: -20.5 "Hg
STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 11 QC Code: _____ Matrix: Air Tag ID: 7917-11-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	13:01
Longitude:		End: 8/22/18	12:33

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM - FIRST FLOOR

CANISTER ID: 4562

REGULATOR ID: A0271055-9

PRESSURE: START: - 29.5 "Hg
STOP: - 4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 12 QC Code: _____ Matrix: Air Tag ID: 7917-12-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] - Sub-Slab

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	12:59
Longitude:		End: 8/22/18	12:32

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT STORAGE AREA.

CANISTER ID: 3030

REGULATOR ID: A0271055-8

PRESSURE: START: -29 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7917 Sample Number: 13 QC Code: _____ Matrix: Air Tag ID: 7917-13-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/21/18	16:14
Longitude:		End: 8/22/18	16:09

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

FIRST FLOOR LIVING ROOM

CANISTER ID: R0486

REGULATOR ID: A0334866-1

PRESSURE: START: - 29 "Hg
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 14 QC Code: _____ Matrix: Air Tag ID: 7917-14-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] - SUB-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: 8/21/18	16:13	
Longitude: _____	End: 8/22/18		16:08

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LAUNDRY ROOM.

CANISTER ID: 4559

REGULATOR ID: A0334874-8

PRESSURE: START: -29.5 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 15 QC Code: _____ Matrix: Air Tag ID: 7917-15-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: **(b) (6)** INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		9/21/18	16:39
Longitude:		End: 9/22/18	16:22

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVINGROOM - FIRST FLOOR

CANISTER ID: L5203

REGULATOR ID: A0283642-1

PRESSURE: START: -29 "Hg
STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 **Sample Number:** 16 **QC Code:** _____ **Matrix:** Air **Tag ID:** 7917-16-_____

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) [REDACTED]

External Sample Number: _____

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 8/21/18 16:30
Longitude: _____ **End:** 8/22/18 16:21

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BAS E M E N T

CANISTER ID: 4056

REGULATOR ID: A0106061-5

PRESSURE: START: - 27 "Hg

STOP: - 'S "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 17 QC Code: _____ Matrix: Air Tag ID: 7917-17-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	08:19
Longitude:		End: 8/23/18	08:02

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples In Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM

CANISTER ID: 4560

REGULATOR ID: A0298796-10

PRESSURE: START: -36 "Hg
STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7917 Sample Number: 18 QC Code: _____ Matrix: Air Tag ID: 7917-18-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke

Project Desc: Tanglefoot Lane

City: Bettendorf

State: Iowa

Program: Superfund

Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

Sub-Slab

External Sample Number: _____

Expected Conc: (or Circle One: Low Medium High) Date Time(24 hr)

Latitude: _____ Start: 8/22/18 08:18

Longitude: _____ End: 8/23/18 08:01

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1. VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT CLOSET

CANISTER ID: 14977

REGULATOR ID: A0334367-4

PRESSURE: START: -29.5 "Hg

STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 19 QC Code: _____ Matrix: Air Tag ID: 7917-19-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/10	08:30
Longitude:		End: 8/23/10	08:03

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BACK PATIO

CANISTER ID: 3007

REGULATOR ID: A0283641-7

PRESSURE : START: -30 "Hg
STOP: - 5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 20 QC Code: _____ Matrix: Air Tag ID: 7917-20-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: [REDACTED] (b) (6) [REDACTED] - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 08/22/18	08:54
Longitude:		End: 08/23/18	08:21

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LIVINGROOM

CANISTER ID: LS184

REGULATOR ID: A0299486-2

PRESSURE: START: -29.5 "Hg
STOP: -6 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 21 QC Code: _____ Matrix: Air Tag ID: 7917-21-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	0:28
Longitude:		End: 8/23/18	10:00

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT LIVING ROOM.

CANISTER ID: 4571

REGULATOR ID: 7342924

PRESSURE: START: -36 "Hg

STOP: - 8 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 22 QC Code: _____ Matrix: Air Tag ID: 7917-22-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) [REDACTED] - INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: 8/22/18	11:00	
Longitude: _____	End: 8/23/18	10:25	

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

1ST FLOOR LIVING ROOM

CANISTER ID: 65191

REGULATOR ID: A0333292-6

PRESSURE: START: -30 "Hg
STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 23 QC Code: _____ Matrix: Air Tag ID: 7917-23-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) Sub-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/22/18	10:59
Longitude:	_____	End: 8/23/18	10:35

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT STORAGE ROOM.

CANISTER ID: 4569

REGULATOR ID: A033 4874-5

PRESSURE: START: ~30 "Hg
STOP: ~4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 24 QC Code: _____ Matrix: Air Tag ID: 7917-24-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) EXTERIOR AMBIENT AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Start: 8/22/18	11:04
Longitude:	_____	End: 8/23/18	16:39

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

WEST SIDE OF HOUSE.

CANISTER ID: L5195

REGULATOR ID: A0289195-1

PRESSURE: START: -30 "Hg
STOP: -4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 25 QC Code: _____ Matrix: Air Tag ID: 7917-25-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/18	12:57
Longitude:		End: 8/23/18	12:12

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM - FIRST FLOOR

CANISTER ID: 65182

REGULATOR ID: A0298796-4

PRESSURE: START: -30 "Hg
STOP: -5 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 26 QC Code: _____ Matrix: Air Tag ID: 7917-26-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6) Sub-SLAB

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:	_____	Sample Collection: Start:	8/22/18 14:56
Longitude:	_____	End:	8/23/18 12:11

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

NEAR
BASEMENT - UNDER STAIRS

CANISTER ID: LS193

REGULATOR ID: A0334394-3

PRESSURE: START: - 30 "Hg
STOP: - 6 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 27 QC Code: _____ Matrix: Air Tag ID: 7917-27-_____

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane
City: Bettendorf State: Iowa
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: (b) (6)

INDOOR AIR

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: 8/22/10	15:10
Longitude:		End: 8/23/10	14:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

LIVING ROOM. MAIN FLOOR.

CANISTER ID: L5110

REGULATOR ID: A0334388-4

PRESSURE: START - ²⁷ 30" Hg

STOP - 4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7
Kansas City, KS

ASR Number: 7917 **Sample Number:** 28 **QC Code:** — **Matrix:** Air **Tag ID:** 7917-28-—

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane
 City: Bettendorf **State:** Iowa
 Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: (b) (6) - SUB-SLAB

External Sample Number:

Expected Conc: _____ (or Circle One: Low Medium High) **Date** _____ **Time(24 hr)** _____
Latitude: _____ **Sample Collection: Start:** 8/22/10 15:10
Longitude: _____ **End:** 8/23/10 14:50

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

BASEMENT

CANISTER ID: 3017

REGULATOR ID: A0295B15-3

PRESSURE: START: - 30 "Hg

STOP. - 4 "Hg

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 29 QC Code: FB Matrix: Air Tag ID: 7917-29-FB

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: TRIP BLANK SAMPLE

External Sample Number:

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		9/23/18	15:00
Longitude:		End:	

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 6 Liter Canister	None	60 Days	1 VOCs in Air Samples in Canisters at Ambient Levels by GC/MS

Sample Comments:

(N/A)

CANISTER ID : 3031

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 101 QC Code: _____ Matrix: Water Tag ID: 7917-101-_____

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane **State:** Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: _____ (b) (6) _____

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____		Sample Collection: Start: <u>8/23/16</u>	<u>11:10</u>
Longitude: _____		End: _____	_____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
0 X - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
0 X - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
0 X - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
1 X - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
1 X - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
2 X - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
2 X - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A) MS/MSD COLLECTED.

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 102 QC Code: FB Matrix: Water Tag ID: 7917-102-FB
FB 8/24/18

Project ID: MLB7C700 **Project Manager:** Melinda Luetke
Project Desc: Tanglefoot Lane **State:** Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION **Site ID:** B7C7 **Site OU:** 00

Location Desc: FIELD BLANK SAMPLE

External Sample Number: _____

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude: _____	Sample Collection: Start: 8/23/18	12:30	
Longitude: _____	End: _____	____:	____

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 1 Liter plastic bottle	5 mL of HNO3/L to pH<2	28 Days	1 Mercury in Water
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2	180 Days	1 Metals - Dissolved, in Water by ICP/MS
1 - 1 Liter plastic bottle	Field Filtered, HNO3 to pH<2, 4 Deg C	28 Days	1 Mercury - Dissolved, in Water
1 - 1 Liter plastic bottle	HNO3 to pH<2	180 Days	1 Metals in Water by ICP/MS
1 - 250mL amber glass	4 Deg C	7 Days	1 Pesticides and PCBs in Water by Twister GC/MS
1 - 40mL VOA vial	4 Deg C	7 Days	1 Acid Herbicides in Water by LCMSMS
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile Organic Compounds in Water
1 - 80 oz amber glass	4 Deg C	7 Days	1 Semi-Volatile TPH (DRO & ORO) in Water by GC/FID

Sample Comments:

(N/A)

Sample Collected By: TT

Sample Collection Field Sheet

US EPA Region 7

Kansas City, KS

ASR Number: 7917 Sample Number: 104 QC Code: FB Matrix: Water Tag ID: 7917-104-FB

Project ID: MLB7C700 Project Manager: Melinda Luetke
Project Desc: Tanglefoot Lane State: Iowa
City: Bettendorf
Program: Superfund
Site Name: Tanglefoot Lane - SITE EVALUATION/DISPOSITION Site ID: B7C7 Site OU: 00

Location Desc: Water LDL VOA/TPH VOA (GRO) Trip Blank

External Sample Number: 18/24/18

Expected Conc:	(or Circle One: Low Medium High)	Date	Time(24 hr)
Latitude:		Start: <u>8/23/18</u>	<u>12:45</u>
Longitude:		End: <u> / / </u>	<u> : </u>

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 VOCs in Water by GC/MS for Low Detection Limits
3 - 40mL VOA vial	4 Deg C, HCL to pH<2	14 Days	1 Volatile TPH in Water by GC/MS

Sample Comments:

Prepared by the LTAB.

ONLY 3 - 40mL VOA'S PROVIDED
FOR TPH BLANK.

No TPH VOA Trip
Blank collected/proxy
8/24/18

Sample Collected By: TT